THE
MEMOTECH MTX
PROGRAM
BOOK

PETER GOODE

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PREFACE

If you are a Memotech MTX owner, or are about to become one, it is probably because you have decided that this computer offers you more potential for gaming, programming etc. in colour, with sound, than other machines on the market.

Because we are aware of the potential of the Memotech MTX we have written a wide choice of program which make use of the computer's facilities.

If you are a games player, you will find ample opportunity to use the colour and graphics whilst testing your reactions and finger twisting skills to the full. If you are interested in adventure gaming we have included a program which is a variant on Dragons and Dungeons. We have not, for reasons of space, been able to list a fully extended program but, when you buy your disks, you will be able to use a wider range of circumstances for your adventuring.

To help users understand the programs we have included full 'how to' instructions and, for those who are keen to move on to greater things, programming hints where we feel they may be of interest.

A book like this is always produced with the help of many people and we would like to thank, in particular, the Technical Staff of Memotech U.K. Ltd.

For Fiona Jane

CONTENTS

IMPORTANT NOTES

If you are a newcomer to computing, and are unfamiliar with the task of entering program listings, remember that it is of paramount importance to follow every detail. There are no real short cuts.

Your computer is very particular about grammar and punctuation points and will not run the programs if even a small detail is missing.

Be very fussy about the difference between 0 (zero) and □ (letter O). All the programs in this book have been printed directly from the Memotech MTX and are therefore 'bug free'.

If you intend to 'save' some of these programs on tape to ensure you don't have to retype them always make sure that your cassette has accepted the information before you move on.

You will find that patience is it's own reward in this high technology world.

WORD SQUARE
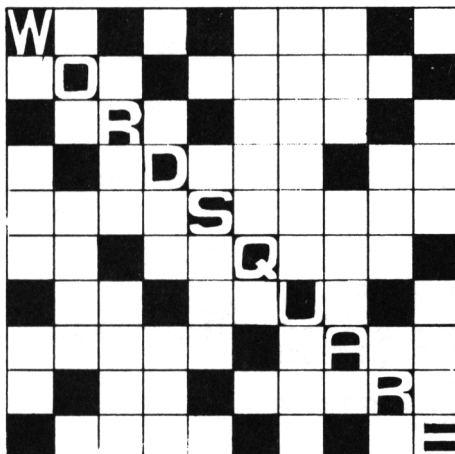
This program is designed to test the wits of members of your circle who think they are keen of eye and sharp of brain.

The screen will generate a square of alphabet which will contain hidden words. The words can be written horizontally, vertically, diagonally and even backwards.

How to play

When you have identified a word type in the answer and press RETURN. You should note that you may identify small words such as 'of' and 'for' which appear simply because of the structure of the screen, but are not actually acceptable to the computer.

Programming Hints

To make the program challenging you should have someone
else enter the data words which are in the end of the program.
Otherwise you will, of course, know the words you are
seeking.

The Program

```
10 REM WORD SQUARE
20 DIM P(10),X(10),Y(10)
25 DIM S$(255),T$(255)
28 DIM W(10)
30 GOSUB 1000
40 GOSUB 2000
50 FOR L=1 TO 10: LET W(L)=0: NEXT L
60 LET SC=0
80 GOTO 100
90 CSR 0,21: PRINT "Be Sensible": PAUSE
1500
100 CSR 0,22: PRINT "Your guess
             ";: CSR 11,22
110 INPUT A$
115 IF LEN (A$)=0 OR LEN (A$)>10 THEN  G
OTO 90
117 CSR 0,21: PRINT "

       "
120 GOSUB 4000
130 IF F=0 THEN  CSR 0,21: PRINT "Not th
ere": GOTO 490
140 LET SC=SC+1
150 REM Highlight the word which has bee
n found
155 IF W(F)=1 THEN  CSR 0,21: PRINT "You
've already had that word": GOTO 490
157 LET W(F)=1
160 LET B=INT(P(F)/15): LET A=P(F)-15*B
170 FOR L=1 TO O
180 CSR A+5,B+2: LET D$=SPK$
190 CSR A+5,B+2: COLOUR 0,7: COLOUR 1,1:
 PRINT D$;
```

```
195 COLOUR 0,4: COLOUR 1,15
200 LET A=A+X(F): LET B=B+Y(F)
210 NEXT L
215 IF SC=10 THEN  GOTO 800
220 CSR 0,22: PRINT "Well done ";SC;" co
rrect so far"
490 PAUSE 2000: CSR 0,21: PRINT "

                    "
500 GOTO 100
800 REM Here when all ten are found
810 CLS : CSR 0,10
820 PRINT "Well done...you found them al
l"
830 IF INKEY$<>"" THEN  GOTO 830
840 IF INKEY$="" THEN  GOTO 840
850 STOP
1000 REM read in data and store in squar
e
1003 VS 4: COLOUR 2,1: CLS : COLOUR 0,1:
 COLOUR 1,7
1006 CSR 10,10: PRINT "One moment"
1010 LET S$=""
1020 FOR L=1 TO 15: LET S$=S$+"
      ": NEXT L
1025 RESTORE 9000
1030 FOR I=1 TO 10
1040 READ N$: LET N=LEN (N$)-1: LET N$=R
IGHT$(N$,N)
1050 ON INT(RND*8) GOSUB 3000,3010,3020,
3030,3040,3050,3060,3070
1060 LET A=INT(RND*15): LET B=INT(RND*15
)
1070 LET C=A+X(I)*N: LET D=B+Y(I)*N
1080 IF C<0 OR D<0 OR C>14 OR D>14 THEN
 GOTO 1050
1090 LET L=-1
1095 LET L=L+1
1100 LET Q=1+(B+Y(I)*L)*15+A+X(I)*L: LET
 Q$=MID$(S$,Q,1)
1110 IF Q$=" " THEN  GOTO 1130
1120 IF Q$<>MID$(N$,L+1,1) THEN  GOTO 10
50
1130 IF L<>N-1 THEN  GOTO 1095
1140 FOR L=0 TO N-1
```

```
1150 LET Q=1+(B+Y(I)*L)*15+A+X(I)*L
1160 LET S$=LEFT$(S$,Q-1)+MID$(N$,L+1,1)
+MID$(S$,Q+1,255)
1170 NEXT L
1175 LET P(I)=A+B*15
1180 NEXT I
1190 LET T$="": FOR L=1 TO 225
1200 IF MID$(S$,L,1)=" " THEN  LET T$=T$
+CHR$(INT(RND*26+65)) ELSE  LET T$=T$+MI
D$(S$,L,1)
1210 NEXT L: LET S$=T$: LET T$=""
1499 RETURN
2000 REM Display Square
2010 VS 4: CLS : COLOUR 0,1: COLOUR 1,7
2020 FOR L=0 TO 14
2030 CSR 5,L+2
2040 PRINT MID$(S$,L*15+1,15)
2050 NEXT L
2199 RETURN
3000 LET X(I)=-1: LET Y(I)=-1: RETURN
3010 LET X(I)=1: LET Y(I)=1: RETURN
3020 LET X(I)=-1: LET Y(I)=1: RETURN
3030 LET X(I)=1: LET Y(I)=-1: RETURN
3040 LET X(I)=1: LET Y(I)=0: RETURN
3050 LET X(I)=-1: LET Y(I)=0: RETURN
3060 LET X(I)=0: LET Y(I)=-1: RETURN
3070 LET X(I)=0: LET Y(I)=1: RETURN
4000 REM Check if response is valid
4010 RESTORE 9000
4020 LET F=0
4030 FOR L=1 TO 10
4040 READ N$: LET N$=RIGHT$(N$,LEN (N$)-
1)
4050 IF N$=A$ THEN  LET F=L: LET O=LEN (
N$)
4060 NEXT L
4099 RETURN
8999 REM Word lists
9000 DATA  MEMOTECH, VIDEO, COLOUR
9010 DATA  SOUND, GRAPHICS, SPRITES
9020 DATA  GAMES, FUN, COMPUTER
9030 DATA  FUTURE
```

EGG CATCHER

Here is a chance to see if you would be of any use on a battery chicken farm.

We are going to drop an endless stream of eggs from the top of the screen, at random, and you are going to have to run left and right to catch them.

When you have caught one you run to the left, drop it into a shute and it shoots back to the top, earning you points.

By the way, you can only have one egg in the basket at one time; you know that it's not safe to have all your eggs in one basket! Sorry about that one.

How to play

Using arrow keys you move the basket left and right. Press SPACE to stop beneath the falling egg.

You don't need to press any keys when you reach the shute on the left, your Memotech MTX will pick up the eggs for you.

Drop five eggs and the game is over. By that time anyway you will be standing in a large omelette.

The Program

```
10 REM Egg Catcher
20 REM S$ holds the basket shape
30 LET S$=" \_/ "
50 VS 5: CLS : PAPER 10
55 INK 4: FOR L=0 TO 18: CSR 1,L: PRINT
"! !";: NEXT L
70 LET B=5: CSR B,20: PRINT S$
80 LET X=0: LET F=0
90 LET M=0: LET SC=0
100 CSR B,20: PRINT S$
102 IF M=5 THEN  GOTO 800
103 LET A=ASC(INKEY$)
105 IF A=8 AND B>0 THEN  LET B=B-1
110 IF A=25 AND B<35 THEN  LET B=B+1
200 IF X<>0 THEN  GOTO 210
203 IF RND<0.98 THEN  GOTO 300
206 LET X=5+INT(RND*30): LET Y=0
210 CSR X,Y+1: LET H$=SPK$: IF H$<>"\" A
ND H$<>"_" AND H$<>"/" THEN  GOTO 215
211 LET F=1: LET S$=" =o= ": LET SC=SC+1
0
213 CSR X,Y: PRINT " ";: LET X=0: GOTO 3
00
215 CSR X,Y: PRINT " ";
220 LET Y=Y+1: CSR X,Y: PRINT "o";
230 IF Y=22 THEN  CSR X,Y: PRINT " ": LE
T X=0: LET M=M+1
300 IF B<>0 OR F<>1 THEN  GOTO 100
310 LET S$=" \_/ "
320 LET F=0: CSR 0,20: PRINT S$
330 FOR L=18 TO 0 STEP -1
340 LET SC=SC+1: SOUND 0,L*12,15
350 CSR 2,L: PRINT "o"
355 CSR 2,L+1: PRINT " ";
```

```
357 CSR 15,23: PRINT "SCORE : ";SC;
360 NEXT L
370 CSR 2,0: PRINT " ";
380 SOUND 0,0,0
400 GOTO 100
800 REM Player missed five eggs
805 CLS : PAPER 13: INK 1
810 CSR 0,8: PRINT "YOU HAVE DROPPED FIV
E EGGS"
820 CSR 10,15: PRINT "SCORE :";SC
830 CSR 8,20: PRINT "Press <RETURN> to c
ontinue"
840 IF INKEY$<>"" THEN  GOTO 840
850 LET A=ASC(INKEY$): IF A<>13 THEN  GO
TO 850
860 CLS : CSR 0,10
870 PRINT "Do you want another game (Y/N
) ?"
880 IF INKEY$<>"" THEN  GOTO 880
890 LET A$=INKEY$: IF A$="" THEN  GOTO 8
90
900 IF A$="Y" OR A$="y" THEN  RUN
910 IF A$<>"N" AND A$<>"n" THEN  GOTO 88
0
920 CLS : CSR 10,10: PRINT "THE END"
930 CSR 9,11: PRINT "========="
940 STOP
```

SPRITE DESIGNER
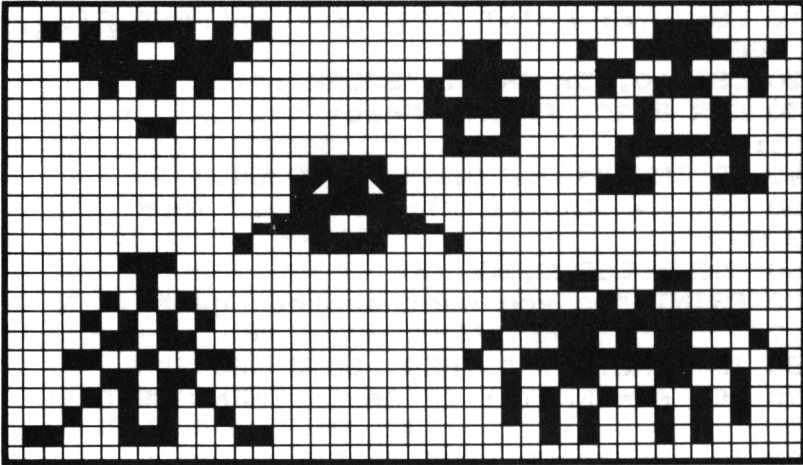
As we said on the cover of this book, the Memotech MTX has fantastic potential for using 'sprites' and this program will be very useful to you when you move on to designing your own sprite characters for your own games.

How to play

The arrow keys or Joystick 1 are used to move around the screen grid and the Home key or Fire button is used to 'invert' the colour of individual points on the grid.

When you have finished your 'design' press the Space bar and you will then be shown the GENPAT commands which you will need to 'generate' the shape.

If you want to make a 8*8 pattern then just use the top left hand corner of the grid.

The Program

```
10 REM Sprite Designer
20 GOSUB 1000
30 DIM SP(32): GOSUB 2000
50 LET W=128: LET V=1
60 CSR 3,1: PRINT "PRESS <SPACE> TO EXIT
"
100 LET A$=INKEY$: IF A$<>"" THEN  GOTO
100
102 LET A$=INKEY$: IF A$="" THEN  GOTO 1
02
105 LET A=ASC(A$): IF A=32 THEN  GOTO 50
0
110 IF A=26 THEN  GOSUB 3000
120 IF A<>10 THEN  GOTO 130
125 LET V=V+1: IF V=17 OR V=33 THEN  LET
 V=V-16
130 IF A<>11 THEN  GOTO 140
135 LET V=V-1: IF V=0 OR V=16 THEN  LET
V=V+16
140 IF A<>8 THEN  GOTO 150
143 LET W=W*2: IF W<>256 THEN  GOTO 150
146 LET W=1: LET V=V-16: IF V<1 THEN  LE
T V=V+32
150 IF A<>25 THEN  GOTO 100
160 LET W=W/2: IF W<>0.5 THEN  GOTO 100
170 LET W=128: LET V=V+16: IF V>32 THEN
 LET V=V-32
180 GOTO 100
199 GOTO 100
500 REM Print the lists of numbers
501 REM as 16*16 or 8*8 sprite
510 VS 5: CLS : CSR 0,4: PRINT "The eigh
t by eight definition :": PRINT
520 PRINT "GENPAT 3, 0";
530 FOR L=1 TO 8: PRINT ",";STR$(SP(L));
: NEXT L
540 CSR 0,10: PRINT "The sixteen by sixt
een definition :": PRINT
550 FOR L=0 TO 3
560 PRINT "GENPAT";STR$(L+4);", 0";
570 FOR M=0 TO 7: PRINT ",";STR$(SP(L*8+
M+1));: NEXT M
580 PRINT : NEXT L
```

```
599 PRINT "Type 'RUN' to define a new sp
rite": STOP
1000 REM Graphics mode / Draw grid
1010 VS 4: COLOUR 2,1: COLOUR 0,1: CLS
1020 COLOUR 4,13: COLOUR 3,4
1030 FOR L=10 TO 170 STEP 10
1040 LINE L,10,L,170
1050 LINE 10,L,170,L
1060 NEXT L
1099 RETURN
2000 REM clear sprite
2010 FOR L=1 TO 32
2020 LET SP(L)=0
2030 NEXT L
2099 RETURN
3000 REM change bit (w) of sp(.v.)
3010 LET P=SP(V)
3020 IF P>W*2-1 THEN  LET P=P-W*2: GOTO
3020
3030 IF P>W-1 THEN  LET SP(V)=SP(V)-W: A
TTR 2,1 ELSE  LET SP(V)=SP(V)+W: ATTR 2,
0
3040 LET X=0: LET Y=V: IF V>16 THEN  LET
 X=80: LET Y=Y-16
3050 LET Y=170-Y*10: LET S=10: LET T=128
3060 IF W<>T THEN  LET T=T/2: LET S=S+10
: GOTO 3060
3070 LET X=X+S: COLOUR 3,9
3080 FOR L=2 TO 8: LINE X+2,Y+L,X+8,Y+L:
 NEXT L
3099 RETURN
```

CASTLE 'ADVENTURE'
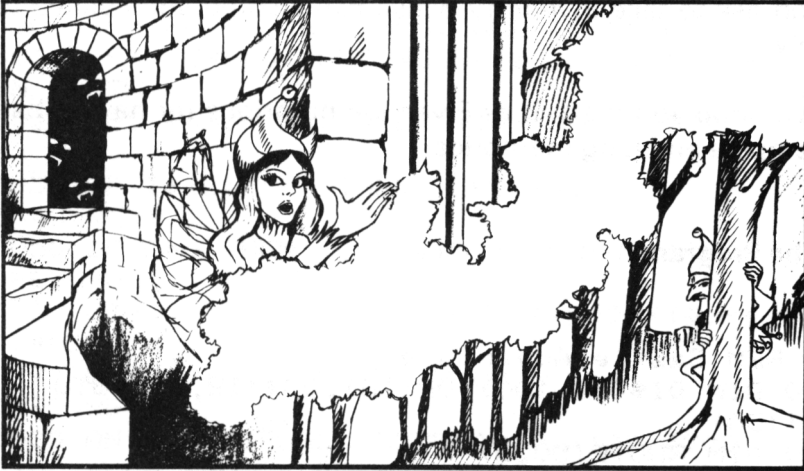
Start looking out your armour, your good luck charms and your trusty friends as you are on your way to try and save the Elf King's daughter, yes we said Elf, from her prison.

The girl's father is waiting for her return in the woods outside the castle. He's not stupid!

How to play

The program only uses two word commands, all of which are shown in the data statements at the end of the listing. Do not try to enter multiple statements such as "TAKE KNIFE AND RUN".

You can, however, abbreviate the direction commands to their initial letter i.e. "GO N" for Go North.

If you haven't 'adventured' before remember that, if you are stuck somewhere and can't seem to be able to move on, you can ask to take Inventory which can also be abbreviated to INV.

We hope you make it as Elves are notorious for having bad tempers and long memories.

The Program


```
0 REM Castle Adventure
10 DIM DI$(50,100),OP(18),OD$(18,80),STU
NT(50)
20 DIM ROUTE(50,6)
30 LET PLOC=1
40 LET PF=0
90 GOSUB 9000
95 GOSUB 5000
100 GOSUB 7600
110 GOSUB 3000: IF VERB=0 THEN  PRINT "I
 don't  understand you": GOTO 100
115 GOSUB 4000
120 ON VERB-1 GOSUB 7000,7000,7000,7000,
7000,7000,8000,6000,6500,5000,7500,7400,
7300,7700,7800,7900
130 GOTO 100
999 STOP
1000 REM return verb number in I/P strin
g
1010 RESTORE 10000: LET T=0
1020 READ T$
1030 IF T$="*" THEN  RETURN
1040 IF T$(1)="!" THEN  LET T$=RIGHT$(T$
,LEN (T$)-1): LET T=T+1
1050 IF T$=V$ THEN  LET VERB=T: RETURN
1060 GOTO 1020
2000 REM return noun number in I/P strin
g
2010 RESTORE 11000: LET T=0
```

```
2020 READ T$
2030 IF T$="*" THEN  RETURN
2040 IF T$(1)="!" THEN  LET T$=RIGHT$(T$
,LEN (T$)-1): LET T=T+1
2050 IF T$=N$ THEN  LET NOUN=T: RETURN
2060 GOTO 2020
3000 REM PARSE THE INPUT AND ANALYSE
3010 LET VERB=0: LET NOUN=0: IF I$="" TH
EN  RETURN
3020 LET P=0: FOR L=LEN (I$) TO 1 STEP -
1
3030 IF I$(L)=" " THEN  LET P=L
3040 NEXT L
3050 IF P=0 THEN  LET V$=I$: GOSUB 1000:
 RETURN
3060 LET V$=I$(1,P-1): LET N$=MID$(I$,P+
1,40)
3070 GOSUB 1000: GOSUB 2000
3099 RETURN
4000 ON STUNT(PLOC) GOTO 4010,4100,4200,
4300,4400,4500,4600,4700,4800,4900
4010 RETURN
4100 IF PF<>1 AND OP(3)=0 THEN  LET OP(3
)=-1: PRINT "The princess dies of hunger
": GOTO 4010
4110 RETURN
4200 PRINT "You fall out of the tree and
 break your neck": GOTO 8990
4300 PRINT "The tree is wobbling very da
ngerously": LET STUNT(PLOC)=2: GOTO 4010
4400 PRINT "The tree is swaying in the w
ind": LET STUNT(PLOC)=3: GOTO 4010
4500 PRINT "'That looks nice', says the
guard, eyeing your gold": GOTO 4010
4700 IF OP(12)<>0 THEN  PRINT "The floor
 drags you back, faster than you can mov
e": LET PLOC=46: GOTO 4010
4710 PRINT "Your  ring of speed glows an
d you rush down the corridor past the sl
iding floor": LET PLOC=50: GOTO 4010
4800 PRINT "A portcullis drops down hard
 behind you, barring the castle entrance
": LET STUNT(PLOC)=0: GOTO 4010
4900 IF OP(3)<>0 THEN  PRINT "The elven
king sees that you have failed in your r
escue attempt, and he swiftly kills you"
: GOTO 8990
```

```
4910 PRINT "The elven king greets you wi
th fair words and offers you all the gol
d and silver of his kingdom as reward fo
r the safe return of his daughter"
4920 GOTO 8990
5000 REM DESCRIBE (PLOC)
5010 PRINT "You are ";
5020 LET L=0
5030 LET L=L+1: IF L>LEN (DI$(PLOC)) THE
N  GOTO 5099
5040 IF DI$(PLOC,L)="!" OR DI$(PLOC,L)="
$" OR ASC(DI$(PLOC,L))=0 THEN  GOTO 5099
5050 PRINT DI$(PLOC,L);
5060 GOTO 5030
5099 PRINT : GOSUB 5200: RETURN
5100 REM DESCRIBE OBJECT (N)
5110 PRINT
5120 LET L=0
5130 LET L=L+1: IF L>LEN (OD$(N)) THEN
GOTO 5199
5140 IF ASC(OD$(NOUN,L))=0 OR OD$(NOUN,L
)="!" THEN  GOTO 5199
5150 PRINT OD$(N,L);
5160 GOTO 5130
5199 PRINT : RETURN
5200 REM DESCRIBE ALL (PLOC) OBJECTS
5205 LET F=0: PRINT "There is ";
5210 FOR N=1 TO 18
5220 IF OP(N)=PLOC THEN  LET NOUN=N: LET
 F=1: GOSUB 5100
5230 NEXT N: PRINT : IF F=0 THEN  PRINT
"nothing here" ELSE  PRINT "here"
5299 RETURN
6000 REM Take command
6010 IF NOUN=0 THEN  PRINT "Take what ?"
: RETURN
6015 IF OP(NOUN)<>PLOC OR OP(NOUN)=-1 TH
EN  PRINT "Take what ?": RETURN
6020 IF OP(NOUN)=0 THEN  PRINT "You've a
lready got it, dumbo": RETURN
6025 IF NOUN>13 THEN  PRINT "You can't t
ake that": RETURN
6030 PRINT "O.K. You've got it now"
6040 LET OP(NOUN)=0: RETURN
6500 REM Drop command
```

```
6510 IF NOUN=0 THEN  PRINT "Drop what ?"
: RETURN
6515 IF OP(NOUN)<>0 THEN  PRINT "Drop wh
at ?": RETURN
6520 PRINT "O.K. It's dropped"
6530 LET OP(NOUN)=PLOC: RETURN
6700 FOR L=1 TO LEN (OD$(NOUN))
6710 IF OD$(NOUN,L)="!" THEN  LET OD$(NO
UN,L)=" "
6720 NEXT L: RETURN
6800 FOR L=1 TO LEN (DI$(PLOC))
6810 IF DI$(PLOC,L)="!" THEN  LET DI$(PL
OC,L)=" "
6820 NEXT L: RETURN
6900 FOR L=1 TO LEN (DI$(PLOC))
6910 IF DI$(PLOC,L)="$" THEN  LET DI$(PL
OC,L)=" "
6920 NEXT L: RETURN
7000 LET NLOC=ROUTE(PLOC,VERB): IF NLOC<
>-1 AND NLOC<>0 THEN  PRINT "O.K.": PRIN
T : LET PLOC=NLOC: GOSUB 5000: GOSUB 400
0: RETURN
7010 IF NLOC=-1 THEN  GOTO 7030
7020 IF VERB=5 THEN  PRINT "There's noth
ing you can climb here": RETURN
7025 PRINT "You can't move in that direc
tion": RETURN
7030 PRINT "A door blocks your way": RET
URN
7300 IF NOUN<>0 THEN  PRINT "try EXAMINE
": RETURN
7310 GOSUB 6800: GOSUB 5000: RETURN
7400 IF NOUN=0 THEN  PRINT "examine what
 ?": RETURN
7405 IF OP(NOUN)<>0 AND OP(NOUN)<>PLOC T
HEN  PRINT "examine what ?": RETURN
7410 GOSUB 6700: LET N=NOUN: GOSUB 5100:
 RETURN
7500 REM INVENTORY
7510 LET F=0: PRINT "You are holding :":
 FOR N=1 TO 18
7520 IF OP(N)=0 THEN  LET F=1: LET NOUN=
N: GOSUB 5100
7530 NEXT N: PRINT : IF F=0 THEN  PRINT
"nothing"
7599 RETURN
```

```
7600 LET I$="": PRINT : PRINT " : ";
7610 LET A$=INKEY$: IF A$<>"" THEN  GOTO
 7610
7620 LET A$=INKEY$: IF A$="" THEN  GOTO
7620
7625 IF A$>="a" AND A$<="z" THEN  LET A$
=CHR$(ASC(A$)-32)
7630 IF ASC(A$)=13 AND LEN (I$)>0 THEN
PRINT : RETURN
7640 IF ASC(A$)<>8 AND LEN (I$)<30 THEN
 LET I$=I$+A$: PRINT A$;: GOTO 7610
7650 IF ASC(A$)<>8 THEN  GOTO 7610
7660 IF LEN (I$)=0 THEN  GOTO 7600
7670 LET I$=I$(1,LEN (I$)-1): PRINT CHR$
(8);" ";CHR$(8);: GOTO 7610
7700 IF NOUN=0 THEN  PRINT "Give what ?"
: RETURN
7710 IF NOUN<>2 AND NOUN<>7 AND NOUN<>9
AND NOUN<>4 AND NOUN<>12 THEN  PRINT "It
's returned to you": RETURN
7720 IF PLOC<>17 THEN  GOTO 7750
7730 IF NOUN<>7 AND NOUN<>12 THEN  PRINT
 "The guard recognises the stolen goods
and promptly kills you.": GOTO 8990
7740 PRINT "The guard snatches your brib
e and opens the gate": LET OP(NOUN)=-1:
LET ROUTE(17,2)=18: LET STUNT(17)=0: RET
URN
7750 IF PLOC<11 OR PLOC>14 THEN  PRINT "
There is nobody here who wants anything"
: RETURN
7760 IF NOUN=4 THEN  PRINT "The princess
 thanks you kindly for the food and look
s  much better": LET OD$(4)="a beatiful,
 healthy looking princess": LET PF=1
7770 LET OP(NOUN)=-1: RETURN
7800 IF NOUN=0 THEN  PRINT "but who ?":
RETURN
7810 IF NOUN<>15 AND NOUN<>16 THEN  PRIN
T "You can't.": RETURN
7820 IF OP(NOUN)<>PLOC THEN  PRINT "You
can't.": RETURN
7830 IF NOUN=15 THEN  PRINT "The kings e
scort instantly rises from his light slu
mber and despatches you with one blow of
 his sword": GOTO 8990
```

```
7840 IF OP(5)=0 THEN  PRINT "The guard s
wings his mace and your knife breaks": L
ET OP(5)=-1: RETURN
7850 PRINT "The guard hits you over the
head and knocks you out.He takes the pri
ncess back to the tower"
7860 LET OP(3)=14: LET OD$(3)="A very di
stressed princess": RETURN
7900 IF NOUN<>0 THEN  PRINT "O.K. '";OD$
(NOUN);"'": RETURN
7910 IF N$="MTX" AND PLOC=6 THEN  LET RO
UTE(6,3)=7: GOSUB 6900: RETURN
7920 IF N$="512" AND PLOC=3 THEN  LET RO
UTE(3,2)=4: GOSUB 6900: RETURN
7930 PRINT "O.K. '";N$;"'": RETURN
8000 IF NOUN=0 THEN  PRINT "Use what ?":
 RETURN
8005 IF OP(NOUN)<>0 AND OP(NOUN)<>PLOC T
HEN  PRINT "Use what ?": RETURN
8010 IF NOUN=1 THEN  GOTO 8100
8011 IF NOUN=4 THEN  GOTO 8200
8012 IF NOUN=8 THEN  GOTO 8300
8013 IF NOUN=13 THEN  GOTO 8400
8014 IF NOUN=18 THEN  GOTO 8800
8019 GOTO 8750
8100 IF PLOC<>15 THEN  PRINT "The ground
 is too hard here": RETURN
8110 PRINT "You dig in the soft earth an
d reveal something": LET ROUTE(15,6)=48:
 GOSUB 6900: RETURN
8200 PRINT "Someone, somewhere, needed t
hat more than you did": LET OP(4)=-1: RE
TURN
8300 PRINT "You'll need to use some rope
": RETURN
8400 IF PLOC=2 THEN  PRINT "The door to
the south is now open": LET ROUTE(PLOC,2
)=16: RETURN
8410 IF PLOC=3 THEN  PRINT "A combinatio
n is needed to get into the garden shed"
: RETURN
8420 IF PLOC=6 THEN  PRINT "You'll need
the password to get in here": RETURN
8430 IF PLOC=18 THEN  PRINT "There's no
way you can unlock a portcullis": RETURN
```

```
8440 PRINT "There's nothing to unlock he
re"
8750 PRINT "You can't use that !": RETUR
N
8800 PRINT "You carefully tie the bucket
 to the rope and lower it down the well"
: PAUSE 2000
8810 PRINT "Your draw the bucket up agai
n": PAUSE 1000: PRINT "There is somethin
g at the bottom of it": LET OP(7)=PLOC
8820 PRINT "You let go of the rope and t
he bucket falls back down the well": LET
 OP(8)=-1: LET OP(18)=-1: PRINT "The obj
ect you found lies glittering on the gro
und"
8830 RETURN
8990 PRINT : PRINT : PRINT : PRINT : PRI
NT : STOP
9000 REM SETUP ALL THE ARRAYS
9010 FOR L=1 TO 50: LET STUNT(L)=0: NEXT
 L
9020 LET STUNT(7)=1: LET STUNT(22)=9: LE
T STUNT(28)=4: LET STUNT(31)=4
9030 LET STUNT(17)=5: LET STUNT(49)=7: L
ET STUNT(18)=8
9050 RESTORE 12000: FOR L=1 TO 50
9060 FOR N=1 TO 6: READ ROUTE(L,N)
9070 NEXT N: NEXT L
9080 RESTORE 13000
9090 FOR L=1 TO 18: READ OP(L): NEXT L
9100 LET OD$(1)="A shovel!ready to dig t
he earth": LET OD$(2)="A pile of treasur
e!gathered in the days of great empires"
9110 LET OD$(3)="A Princess!as beautiful
 as any elven king's daughter could be":
 LET OD$(4)="Some food!lovingly prepared
 and fit for a princess"
9120 LET OD$(5)="A knife!razor sharp, cu
rsed by many, loved by few": LET OD$(6)=
"A large book!telling of the prowess of
the kings escort"
9130 LET OD$(7)="A gold coin": LET OD$(8
)="A bucket!of untold riches": LET OD$(9
)="many Silver Plates!inscribed with the
 mystical runes E.P.N.S."
```

```
9140 LET OD$(10)="Notepaper!bearing the
legend MTX": LET OD$(11)="An ancient scr
oll!reading 'find my daughter and be ric
hly rewarded'"
9150 LET OD$(12)="A shining ring!of spee
d": LET OD$(13)="A key": LET OD$(14)="A
tree!branches hang down low and the trun
k reaches for the sky"
9160 LET OD$(15)="The kings escort!sleep
ing lightly": LET OD$(16)="A castle guar
d!who looks very bored"
9170 LET OD$(17)="A well!radiating magic
": LET OD$(18)="A long well made rope"
9210 LET DI$(1)="in the centre of the ca
stle courtyard": LET DI$(2)="at the sout
hern end of the courtyard!an opening lea
ds south"
9220 LET DI$(3)="by the entrance to the
west tower the garden shed is south$the
shed door is open": LET DI$(4)="inside a
 garden shed"
9230 LET DI$(5)="at the bottom of a wind
ing stairway": LET DI$(6)="by the entran
ce to the east tower": LET DI$(7)="at th
e bottom of a staircase"
9240 LET DI$(8)="on a winding stairway":
 LET DI$(9)=DI$(8): LET DI$(10)="at the
top of a stairway!'512' is scrawled on t
he wall"
9250 LET DI$(11)="on a steep staircase":
 LET DI$(12)=DI$(11): LET DI$(13)=DI$(11
): LET DI$(14)="at the very top of the e
ast tower"
9260 LET DI$(15)="beside a soft patch of
 earth in the courtyard$a hole leads dow
n": LET DI$(16)="at the northern end of
a guarded passage"
9270 LET DI$(17)="in a tunnel.An aging g
uard blocks your way south": LET DI$(18)
="on the main East/West road of middle e
arth"
9280 LET DI$(19)="on the road, a forest
lies to the south": LET DI$(20)="on the
road.A large sign reads : Adventure in n
eed of extension  : ROAD CLOSED"
```

```
9290 LET DI$(21)="on top of a large uncl
imable cliff overlooking a vast panorama
 of places to adventure": LET DI$(22)="i
n a small clearing in the forest"
9300 LET DI$(23)="on the edge of a vast
forest": LET DI$(24)="lost deep in a for
est": LET DI$(25)="lost in a forest": LE
T DI$(26)="lost within a great forest"
9310 LET DI$(27)="halfway up a large tre
e!the tree extends upwards": LET DI$(28)
="at the top of a tree, a small clearing
 is visible below"
9320 LET DI$(29)="in the courtyard": LET
 DI$(30)="in the shade in the courtyard"
: LET DI$(31)="at the top of a tree you
can see the princess in the east tower"
9330 LET DI$(32)="In the north-west corn
er of the courtyard": LET DI$(33)="on st
airs leading down into the dungeon": LET
 DI$(34)="in the guard room"
9340 LET DI$(35)="In the banqueting hall
": LET DI$(36)="At the east end of the b
anqueting hall!a door leads north to the
 kitchen"
9350 LET DI$(37)="In the castle kitchen"
: LET DI$(38)="At the north end of a nor
th-south corridor": LET DI$(39)="in the
servants quarters"
9360 LET DI$(40)="in the royal bedroom!t
here is a door to the west": LET DI$(41)
="in the castle library": LET DI$(42)="i
n the grand throne room"
9370 LET DI$(43)="in a north-south corri
dor!cells lead east and west": LET DI$(4
4)="in an empty cell": LET DI$(45)=DI$(4
4)
9380 LET DI$(46)="in a north-south corri
dor, you can see a ring in a room to the
 west": LET DI$(47)="in a cell"
9390 LET DI$(48)="in a locked dungeon ce
ll": LET DI$(49)="At the south end of a
corridor": LET DI$(50)=DI$(49)
9999 RETURN
```

```
10000 DATA !NORTH,N,!SOUTH,S,!EAST,E,!WE
ST,W
10010 DATA !UP,U,CLIMB,!DOWN,D
10020 DATA !USE
10030 DATA !TAKE,GET
10040 DATA !DROP,PUT
10050 DATA !LOOK
10060 DATA !INVENTORY,INV
10070 DATA !EXAMINE,!SEARCH
10080 DATA !GIVE,BRIBE,!FIGHT,KILL,ATTAC
K
10090 DATA !SAY,SHOUT
10999 DATA *
11000 DATA !SHOVEL,SPADE,!TREASURE,!PRIN
CESS,!FOOD
11010 DATA !KNIFE,WEAPON,!BOOK,!GOLD,COI
N,!BUCKET,!SILVER,PLATES
11020 DATA !NOTEPAPER,PAPER,NOTE,!SCROLL
,!RING,SPEED,!KEY
11030 DATA !TREE,TRUNK,!ESCORT,!GUARD,SO
LDIER,BORED,!WELL,!ROPE
11999 DATA *
12000 DATA  29,2,6,3,0,0,1,-1,30,0,0,0,3
2,-1,1,5,0,0
12010 DATA  3,0,0,0,0,0,0,0,3,0,8,0,15,3
0,-1,1,0,0
12020 DATA  0,0,0,6,11,0,0,0,0,0,9,5,0,0
,0,0,10,8,0,0,0,0,0,9,0,0,0,0,12,7,0,0,0
,0,13,11
12030 DATA  0,0,0,0,14,12,0,0,0,0,0,13,3
5,6,0,29,0,0,2,17,0,0,0,0,16,0,0,0,0,0,-
1,23,19,21,0,0
12040 DATA  0,23,20,18,0,0,0,23,0,19,0,0
,0,23,18,0,0,0
12050 DATA  25,26,24,26,0,0,18,24,26,25,
0,0,25,26,24,25,27,0,26,24,25,26,27,0,25
,24,26,25,27,0,0,0,0,0,28,22
12060 DATA  0,0,0,0,0,27,0,1,15,32,0,0,
6,0,0,2,31,0,0,0,0,0,0,30,34,3,29,0,0,0,
0,0,35,40,0,38
12070 DATA  42,32,0,0,0,0,39,15,36,33,0,
0,37,0,0,35,0,0,0,36,0,39,0,0,0,43,-1,-1
,33,0,0,35,37,0,0,0
```

```
12080 DATA    41,0,-1,-1,0,0,0,40,0,42,0,
0,0,34,41,0,0,0,38,46,44,45,0,0,0,0,0,43
,0,0,0,0,43,0,0,0
12090 DATA   43,49,47,-1,0,0,0,0,0,46,0,0
,0,0,-1,0,15,0,0,0,0,0,0,0,46,0,0,0,0,0
13000 DATA   4,42,14,37,39,41,-1,29,35,49
,0,48,47,30,34,17,29,29
```

DUMP
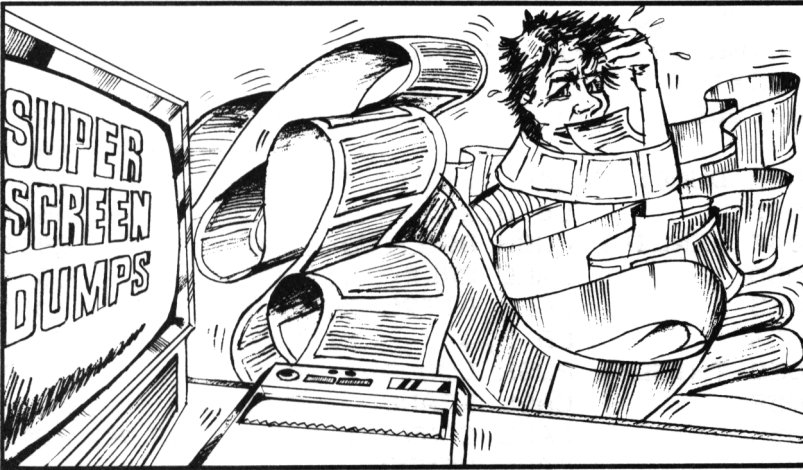
The following listing may look a little odd to the first time user but is, of course, a machine code routine.

Check the section on machine code in the Memotech MTX manual before typing in.

The purpose of this program is so that you can incorporate it into any of your programs to 'dump' the entire graphics screen to a printer.

It could be used, for instance, to print out a series of crossword puzzles which you have designed and intend to take on holiday to while away the hours without your computer.

This program has been configured for use with EPSON type printers but can be readily adapted to nearly all dot-matrix printers which use bit-addressable graphics. Your own printer manual will advise you on it's compatability.

The Program

```
1 VS 4: CLS
2 FOR X=0 TO 191 STEP 4
3 LINE 0,0,X,191
4 LINE 191,191,191-X,0
5 NEXT X
10 CODE

404A DUMP:    CALL SETUP
404D          LD B,24
404F NEWLIN:  PUSH BC
4050          CALL CRLF
4053          CALL BIT256
4056          LD B,32
4058 THISLN:  PUSH BC
4059          CALL READ8
405C          CALL CONV8
405F          CALL SEND8
4062          POP BC
4063          DJNZ THISLN
4065          POP BC
4066          DJNZ NEWLIN
4068          LD A,12
406A          CALL PCHAR
406D          LD A,7
406F          CALL PCHAR
4072          LD A,27
4074          CALL PCHAR
4077          LD A,64
4079          JP PCHAR
407C VRAM:     DS 8
4084 PRAM:     DS 8
408C READ8:    LD B,8
408E          LD HL,VRAM
4091 RD8LOP:   IN A,(1)
4093          LD (HL),A
4094          INC HL
4095          CALL PWAIT
4098          DJNZ RD8LOP
409A          RET
409B SEND8:    LD B,8
409D          LD HL,PRAM
40A0 SN8LOP:   LD A,(HL)
```

```
40A1              CALL PCHAR
40A4              INC HL
40A5              DJNZ SN8LOP
40A7              RET
40A8 CONV8:       LD IX,PRAM
40AC              LD B,8
40AE CV8LOP:      LD HL,VRAM
40B1              PUSH BC
40B2              LD B,8
40B4              LD A,0
40B6 CVILOP:      RL (HL)
40B8              RL A
40BA              INC HL
40BB              DJNZ CVILOP
40BD              LD (IX+0),A
40C0              POP BC
40C1              INC IX
40C3              DJNZ CV8LOP
40C5              RET
40C6 CRLF:        LD A,13
40C8              CALL PCHAR
40CB              LD A,10
40CD              JP PCHAR
40D0 SETUP:       LD A,27
40D2              CALL PCHAR
40D5              LD A,64
40D7              CALL PCHAR
40DA              LD A,27
40DC              CALL PCHAR
40DF              LD A,"1"
40E1              CALL PCHAR
40E4              LD A,0
40E6              OUT (2),A
40E8              OUT (2),A
40EA              RET
40EB BIT256:      LD A,27
40ED              CALL PCHAR
40F0              LD A,"K"
40F2              CALL PCHAR
40F5              LD A,0
40F7              CALL PCHAR
40FA              LD A,1
40FC              JP PCHAR
40FF PCHAR:       PUSH AF
4100 PCHRLP:      IN A,(4)
```

```
4102              AND #1
4104              JR NZ,PCHRLP
4106              POP AF
4107              OUT (4),A
4109              CALL PWAIT
410C              IN A,(0)
410E              CALL PWAIT
4111              IN A,(4)
4113              RET
4114 PWAIT:       PUSH BC
4115              LD B,50
4117 PWTLOP:      DJNZ PWTLOP
4119              POP BC
411A              RET
```

Symbols:

SETUP	40D0	DUMP	404A
NEWLIN	404F	CRLF	40C6
BIT256	40EB	THISLN	4058
READ8	408C	CONV8	40A8
SEND8	409B	PCHAR	40FF
VRAM	407C	PRAM	4084
RD8LOP	4091	SN8LOP	40A0
CV8LOP	40AE	CVILOP	40B6
PWAIT	4114	PWTLOP	4117
PCHRLP	4100		

SOUND TO LIGHT
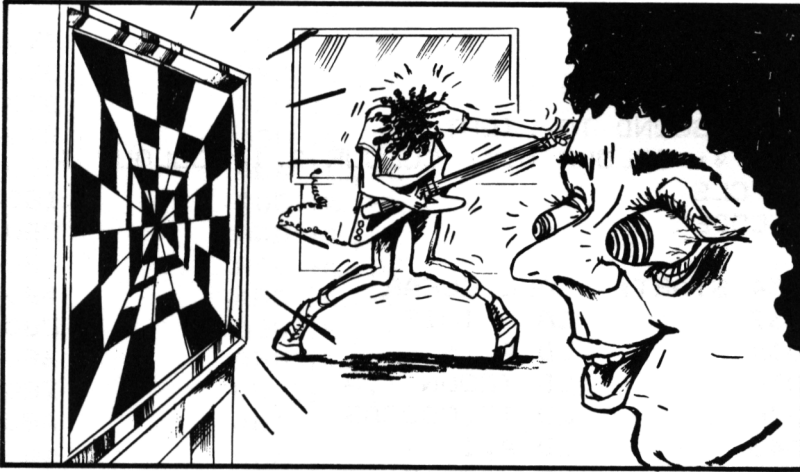
Now here is a chance to make your television screen 'dance' in time to the music.

By connecting your computer and hi-fi up to each other you will be able to generate a 'kaleidescope' effect on your viewer. Imagine the possibilities for a disco party.

This program is written in machine code so, if you are having any problems with the sea of numbers, check with your manual before typing in.

How to play

The music signal is fed into the EAR connection of the cassette input. Be sure that you use an earphone or headphone output from your amplifier and not the speaker output.

Make sure that you enter the machine code listings **exactly** as
they are shown, complete with all spaces, or the program will
not run.

The Program


```
1 REM SOUND TO LIGHT
5 VS 4: COLOUR 0,1: COLOUR 2,1: COLOUR 4
,1: CLS
10 CODE

4034 START:    CALL CLEAR
4037           CALL INIT
403A           LD A,16
403C           LD (COUNT),A
403F           LD IX,COORDS
4043           LD A,1
4045           LD (#FD68),A
4048           CALL #B10
404B MUSLOP:   XOR A
404C           EI
404D MUSWT:    DEC A
404E           JR C,MUSOUT
4050           JR NZ,MUSWT
4052 MUSOUT:   DI
4053           JR Z,BLANK
4055           CALL R32
4058           JR COLOUR
405A BLANK:    LD A,0
405C COLOUR:   LD (PCOL),A
405F           CALL KALEID
4062           JR MUSLOP
4064 RND:      LD HL,(SEED)
4067           CALL RNDM2
406A           LD (SEED),HL
406D           LD A,H
406E           RET
406F RNDM2:    PUSH AF
4070           PUSH BC
4071           PUSH DE
4072           LD D,H
4073           LD E,L
4074           ADD HL,HL
```

```
4075            ADD HL,HL
4076            ADD HL,HL
4077            ADD HL,HL
4078            PUSH HL
4079            ADD HL,HL
407A            EX (SP),HL
407B            OR A
407C            SBC HL,DE
407E            POP BC
407F            ADD HL,BC
4080            ADD HL,HL
4081            ADD HL,HL
4082            ADD HL,HL
4083            ADD HL,DE
4084            ADD HL,HL
4085            ADD HL,HL
4086            ADD HL,DE
4087            LD DE,41
408A            ADD HL,DE
408B            POP DE
408C            POP BC
408D            POP AF
408E            RET
408F R32:       CALL RND
4092            AND #0F
4094            RET
4095 R16:       CALL RND
4098            AND #07
409A            RET
409B INCIX:     INC IX
409D            INC IX
409F            LD A,(COUNT)
40A2            DEC A
40A3            LD (COUNT),A
40A6            RET NZ
40A7            LD IX,COORDS
40AB            LD A,16
40AD            LD (COUNT),A
40B0            RET
40B1 KALEID:    CALL ERASE
40B4            CALL R32
40B7            LD B,A
40B8            LD (IX+0),A
40BB            CALL R16
40BE            LD C,A
40BF            LD (IX+1),A
```

```
40C2            CALL INCIX
40C5            LD A,(PCOL)
40C8 PLOT4:     CALL PLOT
40CB            PUSH AF
40CC            LD A,#1F
40CE            SUB B
40CF            LD B,A
40D0            POP AF
40D1            CALL PLOT
40D4            PUSH AF
40D5            LD A,#0F
40D7            SUB C
40D8            LD C,A
40D9            POP AF
40DA            CALL PLOT
40DD            PUSH AF
40DE            LD A,#1F
40E0            SUB B
40E1            LD B,A
40E2            POP AF
40E3 PLOT:      PUSH AF
40E4            LD D,C
40E5            LD E,0
40E7            LD HL,8192
40EA            ADD HL,DE
40EB            LD D,0
40ED            LD E,B
40EE            EX DE,HL
40EF            ADD HL,HL
40F0            ADD HL,HL
40F1            ADD HL,HL
40F2            EX DE,HL
40F3            ADD HL,DE
40F4            POP AF
40F5            PUSH BC
40F6            PUSH AF
40F7            LD A,L
40F8            CALL OUT2
40FB            LD A,H
40FC            OR 64
40FE            AND 127
4100            CALL OUT2
4103            LD B,8
4105            POP AF
4106 SENDLP:    CALL OUT1
4109            DJNZ SENDLP
```

```
410B              POP BC
410C              RET
410D  DELAY:      PUSH BC
410E              LD B,#4
4110  DELLOP:     DJNZ DELLOP
4112              POP BC
4113              RET
4114  INIT:       LD A,0
4116              CALL OUT2
4119              LD A,#7C
411B              CALL OUT2
411E              LD C,2
4120              LD B,0
4122  INITLP:     LD A,B
4123              CALL OUT1
4126              INC B
4127              JR NZ,INITLP
4129              DEC C
412A              JR NZ,INITLP
412C              RET
412D  ERASE:      LD A,0
412F              LD B,(IX+0)
4132              LD C,(IX+1)
4135              JP PLOT4
4138  CLEAR:      LD DE,8192
413B              LD A,E
413C              CALL OUT2
413F              LD A,D
4140              OR 64
4142              AND 127
4144              CALL OUT2
4147              LD BC,6143
414A              LD A,0
414C  CLRLOP:     CALL OUT1
414F              DJNZ CLRLOP
4151              DEC C
4152              JR NZ,CLRLOP
4154              LD IX,COORDS
4158              LD A,0
415A              LD B,31
415C  CLCORD:     LD (IX+0),A
415F              INC IX
4161              DJNZ CLCORD
4163              RET
4164  OUT1:       NOP
4165              NOP
```

```
4166              NOP
4167              NOP
4168              OUT (1),A
416A              RET
416B OUT2:        NOP
416C              NOP
416D              NOP
416E              NOP
416F              OUT (2),A
4171              RET
4172 SEED:        DW 123
4174 CHAR:        DB 0
4175 COORDS:      DS 32
4195 COUNT:       DB 0
4196 PCOL:        DB 0
4197              RET
```

Symbols:
CHAR4174KALEID40B1
SEED4172RND4064
RNDM2406FR32408F
R164095PLOT440C8
PLOT40E3CLRLOP414C
CLEAR4138COUNT4195
COORDS4175ERASE412D
INCIX409BCLCORD415C
PCOL4196START4034
MUSLOP404BMUSOUT4052
SENDLP4106INIT4114
INITLP4122DELAY410D
DELLOP4110OUT14164
OUT2416BMUSWT404D
BLANK405ACOLOUR405C

DRAGON DUNGEON

We have been saving this monstrous program until the middle of the book as we didn't want to scare you with it's length or it's content.

You may have heard of the highly popular Dragons and Dungeons game but have never played it – until now.

You will begin by finding yourself on the third level of a dungeon and, should you proceed into the heart of the maze, you will meet **twenty one** different types of monsters. Lurking in the lower depths are trolls, orcs, snakes, dwarfs, wolves, newts, many others and, most horrible of all, a Dragon capable of inflicting fatal wounds.

On your side you have help, if you can find your way, from a fire demon and from several types of spells. Be careful how you use the spells, however, as they can sometimes break down and leave you deeper in the . . . . . .

How to play

Press the first letter of the command of your choice as the new menu is offered to you.

You will be told of the consequences of your choice and then you are on your own.

By the way, if you live, a higher score will be given.

The Program

```
10 GOSUB 2900: GOSUB 1600: LET I$=""
100 REM main new location loop
110 GOSUB 2500: PAUSE 2000
115 IF LV=0 THEN   GOSUB 1500: GOTO 900
120 IF MF=1 THEN   GOTO 200
130 GOSUB 1000
140 GOSUB 3400: IF I$="L" THEN   PRINT "T
hat sounds interesting": PAUSE 1500: GOT
O 130
142 IF I$="P" THEN   PRINT "ho hum....":
PAUSE 1000: PRINT "la di da..": PAUSE 10
00: LET MF=1: LET PM=PM+INT(RND*4): LET
PS=PS+4: GOTO 200
144 IF I$="T" THEN   LET MM=1: PRINT "Thi
s can be a little unpredictable": PAUSE
1500: GOSUB 2800: GOTO 100
150 LET F=0: FOR L=1 TO LEN (MO$): IF MI
D$(MO$,L,1)=I$ THEN   LET F=1
160 NEXT L: IF F=0 THEN   PRINT "You can'
t move in that direction": PAUSE 1000: G
OTO 130
170 IF I$="U" THEN   LET LV=LV-1: PRINT "
You'll get out of here yet": GOTO 195
180 IF I$="D" THEN   LET LV=LV+1: PRINT "
Off goes the hero, in search of yet     m
ore adventure": GOTO 195
190 PRINT "The road goes ever on, anon."
195 PAUSE 500: GOTO 100
200 REM monster encountered here
210 PRINT "You just bumped into somethin
g": PAUSE 1000
```

```
220 IF RND<0.02 THEN  LET DF=2: GOSUB 30
00: PRINT "You're not going to believe t
his, it's the DRAGON": PAUSE 1000: PRINT
 "Have fun.....": GOTO 240
230 GOSUB 1700
240 PAUSE 1000
250 GOSUB 1100: GOSUB 3400: IF I$<>"S" A
ND I$<>"D" AND I$<>"R" AND I$<>"M" THEN
 GOTO 250
260 IF I$="S" THEN  LET WP=1: GOSUB 2000
270 IF I$="D" THEN  LET WP=2: GOSUB 2000
280 IF I$="R" AND RND<0.35 THEN  PRINT "
You got away from ": PRINT "the ";DI$: G
OTO 450
290 IF I$="R" THEN  PRINT "You couldn't
get away from it"
300 IF I$<>"M" THEN  GOTO 320
310 GOSUB 2200: ON OP-1 GOSUB 2800,2700,
2100
320 IF MF<>0 THEN  GOTO 490
330 IF DF=2 THEN  LET DF=1: GOSUB 1200
340 GOTO 100
450 REM Player left DRAGON wounded
460 IF DF=2 THEN  LET DF=0: LET DS=MS: L
ET DM=MM
470 GOTO 100
490 IF DF=2 THEN  LET DF=0: LET DS=MS: L
ET DM=MM
500 REM Monster attacks Player
510 GOSUB 3300
520 IF PS<=0 THEN  GOSUB 1400: GOTO 900
590 PAUSE 2000: IF MF>0 THEN  GOTO 250
600 IF DF=2 THEN  LET DF=0: LET DS=MS: L
ET DM=MM
610 GOTO 100
900 REM end of game routine
999 STOP
1000 REM Main Menu
1010 VS 5: CLS
1020 PRINT "Choose what you want to do"
1030 PRINT "=========================="
1040 CSR 0,4: PRINT "Movement :"
1045 CSR 4,7: GOSUB 2600
1050 CSR 4,11: PRINT "Look"
```

```
1060 CSR 4,13: PRINT "Pause"
1070 CSR 4,15: PRINT "Teleport"
1080 CSR 0,20: PRINT "Type the first let
ter of the command of your choice"
1099 RETURN
1100 GOSUB 2500
1110 VS 5: CLS
1120 PRINT "Choose what you want to do"
1130 PRINT "=============================="
1140 CSR 4,6: PRINT "Sword fight"
1150 CSR 4,8: PRINT "Dagger fight"
1160 CSR 4,10: PRINT "Run away"
1170 CSR 4,12: PRINT "Magic spell"
1175 CSR 0,15: GOSUB 1800
1177 CSR 0,17: GOSUB 2300
1180 CSR 0,20: PRINT "Type the first let
ter of the command of your choice"
1199 RETURN
1200 REM PLayer has killed the dragon
1210 VS 5: CLS
1220 CSR 0,4: PRINT "Well played brave k
night"
1230 CSR 0,6: PRINT "You have slain the
foul beast"
1240 CSR 0,8: PRINT "THe Dragon, terror
of your people, has fallen in battle"
1245 PAUSE 2000
1250 CSR 0,11: PRINT "(....and your scor
e hath risen....)"
1260 LET SC=SC+200
1270 LET DF=1
1299 RETURN
1400 REM The player managed to get killl
ed
1410 VS 5: CLS
1420 PRINT "Now comes that moment in the
 life of   every truly gallant knight"
1430 PRINT : PRINT "When the court meets
 for a great feast and all make merry an
d eat and drink   their fill."
1440 PAUSE 2000: PRINT : PRINT "...excep
t you, that is....."
1450 PRINT : PRINT "I'm afraid that you
just died."
1460 PRINT : PRINT "You managed to amass
the truly noble   score of ";SC
```

```
1470 CSR 0,20: PRINT "Why not try differ
ent tactics next time"
1480 PAUSE 4000
1499 RETURN
1500 REM The player has escaped
1510 CLS
1520 PRINT "You've done it, against all
odds"
1530 PRINT "You've actually escaped from
 the       dreadful place"
1540 IF DF=0 THEN  PRINT "You didn't 'Qu
ite' manage to stay      around long eno
ugh to kill the dragon.": GOTO 1560
1545 PRINT "You even managed to kill the
 foul,      cruel and Awfully nasty drago
n on the  way"
1557 PRINT : PRINT "That won't be altoge
ther bad for your  bank balance": PAUSE
1000: PRINT : PRINT "Or your score"
1558 LET SC=SC+400
1560 CSR 0,15: PRINT "YOU HAVE SCORED ";
SC;" points"
1570 PRINT "Plus a small psychological b
onus": PAUSE 2000: PRINT "You're alive"
1599 RETURN
1600 REM set RAND variable by maze numbe
r requested
1610 VS 5: CLS
1620 CSR 0,10
1630 INPUT "Maze Number ";N
1640 CSR 0,17
1650 PRINT "Write this number down"
1660 PRINT : PRINT "so that you can have
 the"
1670 PRINT : PRINT "same maze again if y
ou lose"
1680 RAND N
1699 RETURN
1700 REM Choose a random monster
1705 LET L=3*LV: IF L>20 THEN  LET L=20
1710 LET N=INT(RND*L+1): LET M=INT(RND*2
0+1)
1720 LET DI$=A$(M)+" "+M$(N)
1730 LET MS=INT(RND*MS(N)+1)
1740 LET MM=INT(RND*MM(N)+1)
```

```
1750 LET MC=MC(N)
1760 LET NS=MS+MM*4*MC/100
1799 RETURN
1800 REM Print monster statistics
1810 PRINT "The ";DI$;
1820 PRINT " is ";
1830 IF MS<4 THEN  PRINT "nearly dead":
GOTO 1899
1840 IF MS<10 THEN  PRINT "badly wounded
": GOTO 1899
1850 IF MS>PS THEN  PRINT "still dangero
us"
1860 IF MS<=PS THEN  PRINT " still here"
1899 RETURN
2000 REM Reduce MS by player fighting
2010 PRINT "You attack the monster....":
 PAUSE 1000
2020 IF RND*WP<0.4 THEN  PRINT ".... but
 miss": GOTO 2099
2030 PRINT ".... and hit,"
2040 LET N=INT(RND*PS/WP+1)
2050 IF N<=MS/4 THEN  PRINT "causing a s
mall amount of damage": GOTO 2090
2060 IF N>MS/2 THEN  PRINT "causing seri
ous damage to the monster"
2070 IF N>=MS THEN  PRINT : PRINT "The m
onster dies from it's wounds"
2090 LET MS=MS-N: IF MS<0 THEN  LET MS=0
2095 IF MS<=0 THEN  LET SC=SC+NS: LET MF
=0: IF DF=2 THEN  GOSUB 1200
2099 RETURN
2100 REM Reduce MS by player magic
2110 PRINT "Waving your hands and chanti
ng": PRINT "You begin to summon the fire
 demon"
2120 IF RND*PM<MM THEN  PRINT "but your
spell is disrupted by your foe": PRINT "
and the demon returns": PRINT "to the he
lls where it belongs": GOTO 2199
2130 PRINT "and gradually the demon form
s around  your opponents body"
2135 PAUSE 1000
2140 LET N=INT(RND*PM+1)
2145 LET MS=MS-N: LET PM=PM-N
2150 IF MS<0 THEN  LET MS=0
```

```
2160 IF MS=0 THEN  PRINT "The ";DI$;" is
 slain by the fire demon": LET SC=SC+NS:
 LET MF=0: IF DF=2 THEN  GOSUB 1200
2199 PAUSE 2000: RETURN
2200 REM Set Teleport, Heal, Attack menu
2210 VS 5: CLS
2220 CSR 1,5: PRINT "SELECT TYPE OF SPEL
L"
2230 PRINT "===================="
2240 CSR 0,10: PRINT "T)eleport"
2250 CSR 0,12: PRINT "H)eal"
2260 CSR 0,14: PRINT "A)ttack"
2265 CSR 0,16: GOSUB 1800
2270 CSR 5,18: PRINT "Press initial lett
er to select"
2280 LET OP=0: GOSUB 3400
2290 IF I$="T" THEN  LET OP=1
2293 IF I$="H" THEN  LET OP=2
2296 IF I$="A" THEN  LET OP=3
2298 IF OP=0 THEN  GOTO 2280
2299 RETURN
2300 REM Display player characteristics
2310 PRINT "You are feeling ";
2320 ON INT(PS/5) GOTO 2340,2350,2360
2330 PRINT "very strong": GOTO 2370
2340 PRINT "very weak": GOTO 2370
2350 PRINT "weak": GOTO 2370
2360 PRINT "fairly strong"
2370 IF PM=0 THEN  PRINT "and you have n
o magic left": GOTO 2399
2380 IF PM<5 THEN  PRINT "You're running
 out of magic"
2399 RETURN
2400 REM Read names and adjectives
2410 RESTORE 9000
2420 FOR L=1 TO 20
2430 READ A$(L): NEXT L
2450 FOR L=1 TO 20
2460 READ M$(L): NEXT L
2470 FOR L=1 TO 20
2480 READ MS(L),MM(L),MC(L)
2490 NEXT L
2499 RETURN
2500 REM Generate MO$ movement string
2510 LET MO$="        "
```

```
2515 FOR L=65 TO ASC(I$): LET A=RND: NEX
T L
2520 IF RND<0.3 THEN  LET MO$(1)="N"
2530 IF RND<0.3 THEN  LET MO$(2)="E"
2540 IF RND<0.3 THEN  LET MO$(3)="S"
2550 IF RND<0.3 THEN  LET MO$(4)="W"
2560 IF RND<0.07 THEN  LET MO$(5)="U"
2570 IF RND<0.07 THEN  LET MO$(6)="D"
2580 IF MO$="       " THEN  GOTO 2520
2590 IF RND<0.4 THEN  LET MF=1
2599 RETURN
2600 REM Describe location exits
2610 PRINT "You can move : ";MO$
2699 RETURN
2700 REM Player chose the Heal spell
2710 PRINT "You begin to heal yourself"
2720 LET L=INT(RND*3+1)
2730 IF L=1 THEN  PRINT "but your spell
lacks something"
2740 IF L=3 THEN  PRINT "wow ! what a po
werful healing spell"
2750 LET N=INT(RND*PM+1)
2760 LET PS=PS+N*L: LET PM=PM-N
2770 IF PM=0 THEN  PRINT "You have used
up all your magic"
2799 RETURN
2800 REM Teleport out of battle routine
2810 IF RND*PM<MM*1.5 THEN  PRINT "Your
teleport spell fails": GOTO 2899
2820 PRINT "Your material form shimmers
and        then vanishes"
2830 PAUSE 2000: PRINT "You re-appear so
mewhere else"
2840 RAND RND*VAL(TIME$)
2850 PRINT "The surroundings look strang
e"
2860 IF RND<0.4 THEN  PRINT "You've move
d further down into the     dungeon": LE
T LV=LV+INT(RND*4+1)
2870 LET MF=0
2880 IF DF=2 THEN  LET DF=0
2899 RETURN
2900 REM Setup all variables/arrays
2910 CLEAR
2920 DIM A$(20,15),M$(20,18)
2930 DIM MS(20),MM(20),MC(20)
```

```
2940 GOSUB 2400
2945 LET DM=30: LET DC=75: LET DS=25
2950 LET DF=0
2960 LET PS=20: LET PM=20
2970 LET SC=0: LET LV=3
2980 LET MF=0
2999 RETURN
3000 REM Transfer DRAGON statistics
3010 LET MM=DM: LET MC=DC: LET MS=DS
3040 LET NS=0
3050 LET DI$="awe inspiring, horrendous
Dragon"
3099 RETURN
3100 REM the monster attacks (fighting)
3105 PRINT "The monster claws and bites
at you": PAUSE 1500
3110 IF RND<0.4 THEN  PRINT "but misses
you": GOTO 3199
3120 PRINT "and hits you"
3130 LET N=INT(RND*MS+1)
3140 LET PS=PS-N: IF PS<0 THEN  LET PS=0
3150 IF PS<5 THEN  PRINT "You're getting
 pretty badly hurt": PRINT "better watch
 your step"
3199 RETURN
3200 REM the monster attacks (magically)
3205 PRINT "The monster begins to summon
 a demon": PAUSE 2000
3210 IF RND*MM<PM THEN  PRINT "the demon
 of cold is banished": GOTO 3299
3220 LET N=INT(RND*MM+1)
3230 LET PS=PS-N: LET MM=MM-N
3240 IF PS<=0 THEN  LET PS=0: PRINT "You
 froze....."
3250 IF PS<5 THEN  PRINT "You're nearly
dead"
3260 IF PS>=5 THEN  PRINT "Brrr. That wa
s chilly"
3299 RETURN
3300 REM Choose monster attack type
3310 IF RND*PS>10*RND*MS THEN  PRINT "Th
e monster turns tail and flees from  you
, brave fellow": LET MF=0: LET SC=SC+NS
: GOTO 3399
3320 IF RND*100<MC THEN  GOSUB 3200: GOT
O 3399
```

```
3330 GOSUB 3100
3399 RETURN
3400 REM Read a character from KBD:
3420 LET I$=INKEY$
3430 IF ·I$<"A" OR I$>"Z" THEN  GOTO 3420
3499 RETURN
9000 DATA   vicious,nasty,enormous,violen
t
9001 DATA   sly,undead,beautiful,evil
9002 DATA    rotting,slimy,armoured
9003 DATA   terrible,foul,bloody
9004 DATA    fearsome,hypnotic,dangerous
9005 DATA    sadistic,cruel,pitiful
9010 DATA   orc,kobold,newt,wolf
9015 DATA   eagle,dwarf,troll,balrog
9020 DATA   elf,wight,king,bear
9025 DATA   black rider,snake,devil,will
o' the wisp
9027 DATA   green slime,giant,venus man t
rap,blowfly
9030 DATA   10,0,0,5,20,75,1,50,100,20,0,
0
9040 DATA   15,5,20,15,0,0,30,0,0,15,20,5
0
9050 DATA   10,40,25,40,100,2,30,10,20,35
,0,0
9060 DATA    20,40,10,10,0,0,4,20,40,20,
70,10
9070 DATA   4,0,0,35,0,0,20,10,30,10,10,7
5
```

WAR PLAN
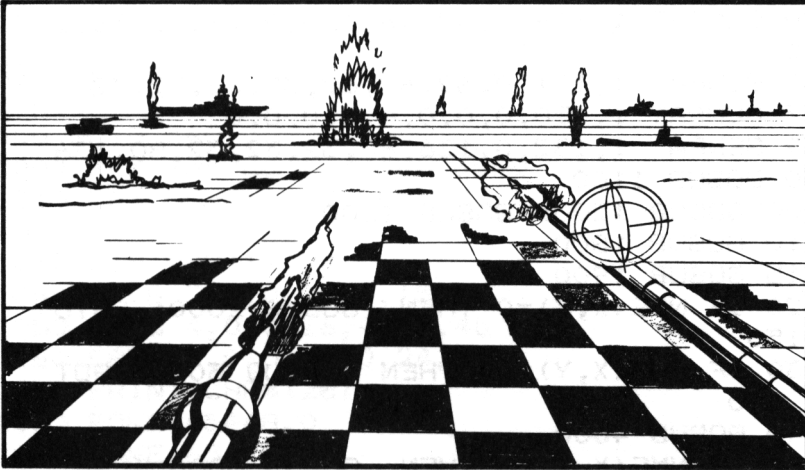
Twenty enemy units are 'hidden' on the screen and must be 'knocked' out by your missiles in as few shots as possible. You have only fifty missiles so you will have to use them sparingly, and accurately, or you will be over-run by the opposition.

If, after firing, you have not hit your target you will receive intelligence reports from your forward observers in the field.

Your forward troops will only be able to 'search' eight surrounding squares after a miss but, if you make a direct hit then twenty four surrounding squares will be scanned for further enemy targets.

How to play

Use the letter and number keys to define the co-ordinates you have chosen and the Return key to launch your missiles.

The Program

```
10 REM WAR-PLAN
20 GOSUB 1000
30 GENPAT 1,129,0,32,96,120,96,112,136,1
12
35 GENPAT 1,131,0,62,62,62,32,32,32,32
37 GENPAT 1,130,0,0,0,0,0,0,0,0
39 GENPAT 1,132,0,136,80,32,32,32,80,136
50 GOSUB 1100
100 GOSUB 1200: GOSUB 1600
110 GOSUB 1800
115 GOSUB 1900
120 IF NME(X,Y)=0 THEN  GOSUB 2000: GOTO
 150
130 IF NME(X,Y)=-1 THEN  GOSUB 3000: GOT
O 150
140 GOSUB 4000
150 IF NME(X,Y)=0 THEN  GOSUB 6000 ELSE
 GOSUB 5000
180 LET SR=SR-1: IF SR>0 THEN  LET M$="Y
ou have "+STR$(SR)+" shots left": GOSUB
1300: PRINT
199 IF SR>0 AND ER>0 THEN  GOTO 110
200 REM player is out of shots
201 REM or has  destroyed all NME units
210 IF ER=0 THEN  GOSUB 7000: GOTO 100
220 LET M$="Central Office advises you."
: GOSUB 1300: PRINT
230 LET M$="You have used up all our mis
siles": GOSUB 1300: PRINT
240 LET M$="This is where the enemy was
hiding": GOSUB 1300: PRINT
245 VS 3: GOSUB 1700: VS 4
247 LET M$="You have scored :"+STR$(SC):
 GOSUB 1300: PRINT : PAUSE 1000
250 IF SC>HS THEN  LET M$="Which is the
high score": GOSUB 1300: LET HS$=N$: LET
 HS=SC: PRINT
500 REM Ask if player wants another game
510 VS 5: CLS : CSR 0,10
520 LET M$="Commander "+HS$+" has the hi
gh score": GOSUB 1300
540 CSR 0,12: LET M$="Which is "+STR$(HS
)+" points": GOSUB 1300
```

```
550 CSR 0,16: LET M$="Does anyone want a
nother game (Y/N) ?": GOSUB 1300
560 LET I$=INKEY$: IF I$<>"" THEN  GOTO
560
570 LET I$=INKEY$: IF I$="" THEN  GOTO 5
70
580 IF I$="y" OR I$="Y" THEN  GOTO 50
590 IF I$="n" OR I$="N" THEN  VS 5: CLS
:. STOP
600 GOTO 560
1000 REM Set-up for new game
1010 LET HS=0: LET HS$=""
1020 VS 5: CLS
1030 DIM NME(14,24)
1040 CRVS 3,0,0,0,40,15,40
1050 CRVS 4,0,0,16,40,6,40
1060 CRVS 5,0,0,0,40,24,40
1070 PRINT CHR$(28)
1080 POKE 65448,0
1083 POKE 65418,0
1086 POKE 65433,0
1099 RETURN
1100 REM set-up for new player
1105 VS 5
1110 LET SC=0: CLS
1120 CSR 5,10: PRINT "What is your name
";
1130 INPUT N$: IF N$="" THEN  GOTO 1120
1140 LET WV=1
1199 RETURN
1200 REM set-up for new wave
1210 VS 5: CLS : CSR 0,8: LET M$="Comman
der "+N$+".": GOSUB 1300
1220 CSR 0,10: LET M$="Central Office ad
vises you.": GOSUB 1300
1230 CSR 0,12: LET M$="Attack enemy imme
diately.": GOSUB 1300
1240 CSR 0,14: LET M$="Repeat, ATTACK. A
TTACK.": GOSUB 1300
1250 CSR 0,20: LET M$="": FOR L=1 TO 10:
 LET M$=M$+CHR$(10): NEXT L: GOSUB 1300
1270 FOR X=1 TO 14: FOR Y=1 TO 24: LET N
ME(X,Y)=0: NEXT Y: NEXT X
1275 LET ER=20: FOR L=1 TO ER
1278 LET X=INT(RND*10+3): LET Y=INT(RND*
20+3): IF NME(X,Y)<>0 THEN  GOTO 1278
```

```
1280 IF L<3 THEN  LET NME(X,Y)=-1 ELSE
LET NME(X,Y)=1
1285 NEXT L: LET SR=50
1299 RETURN
1300 REM Teletype emulator
1310 FOR L=1 TO LEN (M$)
1320 PRINT MID$(M$,L,1);
1330 SOUND 3,4,15: PAUSE 100
1340 SOUND 3,0,0
1350 NEXT L
1399 RETURN
1400 REM scan locally
1410 LET NN=0
1420 FOR X=TX-1 TO TX+1
1430 FOR Y=TY-1 TO TY+1
1440 LET NN=NN+ABS(NME(X,Y))
1450 NEXT Y: NEXT X
1460 LET NN=NN-ABS(NME(TX,TY))
1499 RETURN
1500 REM  scan larger area
1505 LET NN=0
1510 FOR X=TX-2 TO TX+2
1520 FOR Y=TY-2 TO TY+2
1530 LET NN=NN+ABS(NME(X,Y))
1540 NEXT Y: NEXT X
1550 LET NN=NN-ABS(NME(TX,TY))
1599 RETURN
1600 REM label map area
1605 VS 3: CLS
1610 CSR 11,0: PRINT "11111111112": CSR
2,1: PRINT "12345678901234567890"
1620 CSR 0,2
1630 FOR L=ASC("A") TO ASC("J")
1640 PRINT CHR$(L): NEXT L
1699 RETURN
1700 REM fill in all NME units
1710 FOR X=3 TO 12
1720 CSR 2,X-1
1730 FOR Y=3 TO 22
1740 PRINT CHR$(130+NME(X,Y));
1750 NEXT Y
1760 NEXT X
1799 RETURN
1800 REM get a legal shot
1810 VS 4: LET M$="Enter target for miss
ile": GOSUB 1300: PRINT
```

```
1820 LET X=1: LET A=1: LET B=0: LET C=1:
 VS 3
1830 CSR 10,14: PRINT "[ ";CHR$(64+X);"
 ";A+B;" ]   ";
1840 LET I$=INKEY$: IF I$<>"" THEN  GOTO
 1840
1845 LET I$=INKEY$: IF I$="" THEN   GOTO
 1845
1850 IF I$<"0" OR I$>"9" THEN   GOTO 1880
1860 IF C=1 THEN   LET B=A*10: LET A=ASC(
I$)-ASC("0"): LET C=0: GOTO 1830
1870 LET C=1: LET B=A*10: LET A=ASC(I$)-
ASC("0"): GOTO 1830
1880 IF I$=CHR$(13) THEN   GOTO 1890
1881 IF I$>="a" AND I$<="j" THEN   LET I$
=CHR$(ASC(I$)-ASC("a")+ASC("A"))
1882 IF I$<"A" OR I$>"J" THEN   PRINT CHR
$(7);: GOTO 1830
1883 LET X=ASC(I$)-ASC("A")+1: GOTO 1830
1890 LET Y=A+B+2: LET X=X+2: IF X=2 OR Y
<3 OR Y>22 THEN   LET A=1: LET B=0: LET X
=0: PRINT CHR$(7);: GOTO 1820
1895 CSR 10,14: PRINT "                 ";
: VS 4
1899 RETURN
1900 REM Update map
1910 VS 3: CSR Y-1,X-1: PRINT CHR$(132);
1920 VS 4
1999 RETURN
2000 REM player missed
2010 LET M$="The missile missed the enem
y": GOSUB 1300: PRINT
2099 RETURN
3000 REM player hit a command base
3010 LET M$="You have hit the command ba
se": GOSUB 1300: PRINT
3020 IF ER>2 THEN   LET M$="...but it is
not destroyed": GOSUB 1300: PRINT : GOTO
 3099
3030 LET M$="...and you destroyed it": G
OSUB 1300: PRINT
3040 LET SC=SC+500
3050 LET NME(X,Y)=0
3060 LET ER=ER-1
3099 RETURN
4000 REM player hit an enemy unit
```

```
4005 LET NME(X,Y)=0
4010 LET M$="You have hit an enemy unit"
: GOSUB 1300: PRINT
4020 LET M$="and it is destroyed": GOSUB
 1300: PRINT : LET ER=ER-1
4030 LET SC=SC+20
4099 RETURN
5000 REM search around nearby
5005 LET M$="Intelligence reports :"+CHR
$(13)+CHR$(10)
5010 LET TX=X: LET TY=Y: GOSUB 1400
5020 IF NN=0 THEN  LET M$=M$+"no nearby
activity"
5030 IF NN>0 AND NN<3 THEN  LET M$=M$+"a
 small amount of nearby activity"
5040 IF NN>3 THEN  LET M$=M$+"A large am
ount of nearby activity"
5050 VS 4: GOSUB 1300: PRINT
5099 RETURN
6000 REM search around after a hit
6005 LET M$="Intelligence reports :"+CHR
$(13)+CHR$(10)
6010 LET TX=X: LET TY=Y: GOSUB 1500
6020 IF NN=0 THEN  LET M$=M$+"no local a
ctivity"
6030 IF NN>0 AND NN<6 THEN  LET M$=M$+"a
 small amount of local activity"
6040 IF NN>5 THEN  LET M$=M$+"a large am
ount of local activity"
6050 VS 4: GOSUB 1300: PRINT
6099 RETURN
7000 REM Player has wiped out a wave
7010 VS 5: CLS
7020 CSR 0,10: LET M$="Central Office ad
vises you.": GOSUB 1300
7030 CSR 0,12: LET M$="Forthcoming enemy
 counterattack.": GOSUB 1300
7040 CSR 0,14: LET M$="Prevent at all co
sts.": GOSUB 1300
7050 CSR 0,18: LET M$="Your score so far
 is :"+STR$(SC)+" points.": GOSUB 1300
7060 CSR 0,20: LET M$="": FOR L=1 TO 10:
 LET M$=M$+CHR$(10): NEXT L: GOSUB 1300
7099 RETURN
```

S.I.M.P.E.R.

At last, you say, in a computer book there must be an acronym somewhere because the whole business is full of Poke, Peek, Byte and Ram. Well, our title stands for Semi Intelligent Machine Psychologist with Extendable Response.

What, you ask, has that got to do with the time of day?

We will explain.

This is your chance to use your computer to make fools out of all your friends, party guests, loved? ones etc. Your SIMPERING Memotech MTX will ask questions and respond to your answers with 'semi-intelligent' comments. Can you take the risk?

How to play

Your computer will ask you to enter statements about yourself.

Type in your comments, making them as long as possible, and your Memotech MTX will make it's considered comment on your character.

It's a little like having a 'shrink' at home.

Programming Hints

We have given you a selection of appropriate data (words) that might make fun for your family but you can change, add or delete these lines and cause fun and games at your next party.

If you have added a memory expansion unit to your computer you can add to the data statements from lines 5000 onwards and give the computer a much wider choice of response.

The Program

```
10 REM S.I.M.P.E.R.
20 DIM Q$(100)
30 DIM A$(100),T$(100)
40 LET Q$="Hello. My name is SIMPER, I'm
 here to discuss your problems. Are you
happy ?"
50 LET BS=0
60 LET OS=0
100 PRINT Q$: PRINT
110 INPUT A$: IF A$="" THEN  GOTO 100
112 IF A$(1,3)="YES" THEN  PRINT "At las
t, some determination": LET Q$="Do you o
ften behave quite so firmly ?": GOTO 100
115 IF A$(1,6)="PARDON" OR A$(1,2)="EH"
OR A$="WHAT" THEN  GOTO 100
117 IF A$="NO" THEN  PRINT "Short and to
 the point": IF OS=0 THEN  PRINT "Give m
e something to go on": GOTO 100
120 GOSUB 1100: GOSUB 1200
130 LET A$=" "+A$
140 IF V=0 AND U<>0 THEN  GOSUB 3000: GO
TO 100
```

```
160 IF V=0 AND OS<>0 THEN  LET U=OS: LET
 OS=0: GOSUB 3000: GOTO 100
200 IF V=0 THEN  GOSUB 4000: GOTO 100
210 GOSUB 3500: LET OS=U
220 GOTO 100
1000 REM Search for T$ in A$
1010 LET F=0
1013 IF A$=T$ THEN  LET F=1: RETURN
1016 IF LEN (A$)<LEN (T$) THEN  RETURN
1020 FOR L=1 TO LEN (A$)-LEN (T$)+1
1030 IF MID$(A$,L,LEN (T$))=T$ THEN  LET
 F=1
1040 NEXT L
1099 RETURN
1100 REM Return verb number in v
1110 LET V=0: RESTORE 5000
1120 READ N: READ T$: FOR Q=1 TO N
1130 READ T$: GOSUB 1000: IF F=1 THEN  L
ET V=Q
1140 NEXT Q: RETURN
1200 REM Return noun number in u
1210 LET U=0: RESTORE 6000
1220 READ N: READ T$: FOR Q=1 TO N
1230 READ T$: GOSUB 1000: IF F=1 THEN  L
ET U=Q
1240 NEXT Q
1299 RETURN
3000 REM find reply sentance
3010 RESTORE 20000
3020 FOR L=0 TO (U-1)*3+INT(RND*3)
3030 READ Q$: NEXT L
3040 RETURN
3500 REM Choose sentance
3510 RESTORE 10000
3520 FOR L=0 TO (V-1)*3+INT(RND*3)
3530 READ Q$: NEXT L
3540 RETURN
4000 REM conjure up a response
4010 LET BS=BS+1: IF BS=7 THEN  PRINT "S
orry... Your time is up": PRINT : PRINT
: PRINT : PRINT : STOP
4020 RESTORE 30000
4030 FOR L=1 TO BS
4040 READ Q$: NEXT L
4050 RETURN
5000 DATA  8
```

```
5010 DATA !,LOVE,HATE,OWN,WANT,FLY,WALK,
TAKE,GIVE
6000 DATA  9
6010 DATA  !,CAR,COMPUTER,HOLIDAY,MONEY,
TELE,MUSIC,VIDEO,FOOD,FISH
9999 REM REPLY DATA
10000 DATA  How do you know that it's lo
ve ?
10001 DATA  What does it feel like ?
10002 DATA  Why do you think you feel li
ke that ?
10010 DATA  Are you sure that you're not
 being over hasty ?, well if you're sure
 about it then it's good for you.
10011 DATA  is this feelin very intense.
 Do you really mean it ?
10020 DATA  That's very progressive of y
ou,wouldn't 'CARE FOR' be a better way o
f putting it
10021 DATA  But do you own your soul. o
r have you traded it with consumer socie
ty ?
10030 DATA  Please clarify yourself. Lov
e or want. The first is more polite.
10031 DATA  That's very impulsive
10032 DATA  I WANT....I WANT...Belloc ha
s a suprise for you
10040 DATA  Do you sometimes wish that
you could fly, Aeroplanes are so expensi
ve. aren't they ?
10041 DATA  Fly me to the moon...Do you
think you would enjoy that ?
10050 DATA  Nothing beats shank's pony,
walking is very good exercise
10051 DATA  It might be quicker by car
10060 DATA  Perhaps if you said please f
irst it might help,You're showing the pr
ogressive trait again
10061 DATA  How would you take that
10070 DATA  Giving if good for the chara
cter. Do you do a lot of it ?
10071 DATA  Christmas is a time for givi
ng
10072 DATA  Do you recieve more than you
 give ? Be Honest
```

20000 DATA Do you like fast cars,are yo
u good mechanically,do you like motorway
s. they're too fast for me
20010 DATA You obviously like computers
. I can tell that you are a natural at t
he keyboard.
20011 DATA Do computers worry you in an
y way ?,Isn't it a bit unnerving talking
 to a computer like this ?
20020 DATA Would you please take me wit
h you on your holiday, That's a great wa
y to get away from it all
20021 DATA Do you like to go abroad. or
 perhaps you prefer to stay at home
20030 DATA Money is everyone's favourit
e problem. Talking of money I have these
 rather large fees....
20031 DATA How do you earn your money.
 Are you by any chance a fortune teller
?
20032 DATA What it must be to be a mill
ionaire. All that caviar. It's enough to
 make anyone ill.
20040 DATA I'm worried about the profus
ion of tele-this and tele-that devices.
20041 DATA Where do you watch televisio
n most often
20042 DATA Are you addicted to televisi
on. Like some people I know
20050 DATA What type of music do you li
ke best, I used to adore simon and garfu
nkel. What do you think of them ?
20051 DATA So much modern music is too
loud. I get lots of cases connected with
 disco-goers.
20060 DATA Do you use a video recorder
at home ?,how long have you been using a
 video ?
20061 DATA If you video too much then y
ou won't have any time to notice the rea
l world
20070 DATA So you eat too much do you,f
ood is all very well but you musn't be o
bsessed with it. You'll get fat.
20071 DATA What's your favourite meal ?

20080 DATA   Would you like to talk about
 fish, how about some nice fish and chip
s
20081 DATA   Have you ever spent a day by
 the river and not caught anything ?
30000 DATA   Tell me more about your tale
nts. Do you play the concert piano ?
30010 DATA   What kind of hobbies have yo
u got.
30020 DATA   Where do you work or do you
 still go to school ?
30030 DATA   How about a bit of word asso
cition. +++ MATHS +++ ?
30040 DATA   What does the word 'MACKEREL
' suggest to you ?
30050 DATA   I'm afraid that I will have
to leave you in a few moments. I'm expec
ting a very important client.

BREAKOUT

This is our version of the popular arcade game of the same name. Along the top of the screen you will see three rows of coloured 'bricks' and you must use the bouncing ball to demolish the wall in as few moves as possible.

A little hint. If you break through the first two rows and get to the back wall the ball will stay bouncing, and demolishing, from behind until it breaks out again.

How to play

Use arrow keys or joystick to move the bat across the screen.

Programming Hints

If you are finding the game too easy, or too difficult, you can change the size of the bat by altering Line 22. Increase, or

reduce the number after BL=. If you want to sit back and let
the ball bounce on it's own then simply increase the bat size
until it fills the bottom of the screen.

The Program

```
10 REM Breakout
20 LET HS=0
22 LET BL=7
25 LET BA$="": FOR L=1 TO BL: LET BA$=BA
$+CHR$(132): NEXT L: LET BA$=" "+BA$+" "
27 LET BE=31-BL
30 GOSUB 2000
49 REM Main new game loop
50 LET SC=0
55 REM  Main new frame loop
57 LET BH=90
60 GOSUB 1000
70 LET BX=10: GOSUB 3000
80 LET X=5: LET Y=20
85 LET CX=1: LET CY=-1
90 LET GF=1
99 REM Main bounce and Score loop
100 GOSUB 4000
105 IF GF=0 THEN  GOTO 8000
110 GOSUB 5000
120 GOSUB 6000
130 COLOUR 1,15
140 CSR 7,0: PRINT SC;
199 IF BH<>0 THEN  GOTO 100
200 REM End of frame
210 FOR L=10 TO 250 STEP 5
220 SOUND 1,L,15: SOUND 2,L+6,15
225 PAUSE 30
230 NEXT L
235 SOUND 1,0,0: SOUND 2,0,0
240 CLS : CSR 3,10
250 PRINT "Your score is now :";SC
260 IF SC>HS THEN  PRINT "You have the h
igh score": PRINT : PRINT "and you're st
ill playing": GOTO 280
270 PRINT "You are ";HS-SC;" points behi
nd": PRINT : PRINT " the high score"
```

```
280 PAUSE 4000
290 GOTO 55
1000 REM Draw screen layout
1010 VS 4: COLOUR 4,1: COLOUR 0,1: COLOU
R 2,1: CLS
1020 COLOUR 1,13: FOR L=1 TO 21
1025 CSR 0,L: PRINT CHR$(129): CSR 31,L:
 PRINT CHR$(130);: NEXT L
1030 CSR 1,1: FOR L=1 TO 30: PRINT CHR$(
134);: NEXT L
1040 FOR L=1 TO 30: COLOUR 1,3: CSR L,5:
 PRINT CHR$(133);: CSR L,12: PRINT CHR$(
133);
1045 COLOUR 1,6: CSR L,8: PRINT CHR$(133
);: NEXT L
1050 CSR 1,0: COLOUR 1,4: PRINT "SCORE:
        HIGH: ";HS
1099 RETURN
2000 REM Generate the Patterns
2010 GENPAT 1,129,4,2,1,2,4,2,1,2
2020 GENPAT 1,130,32,64,128,64,32,64,128
,64
2030 GENPAT 1,131,24,62,126,255,255,126,
62,24
2040 GENPAT 1,132,255,255,170,85,72,16,0
,0
2050 GENPAT 1,133,255,170,85,170,85,170,
85,255
2060 GENPAT 1,134,0,0,0,0,0,0,0,255
2099 RETURN
3000 REM Draw bat on screen
3010 CSR BX-1,22
3020 COLOUR 1,9
3030 PRINT BA$;
3099 RETURN
4000 REM set up new ball position
4001 REM change score if appropriate
4010 LET C=X+CX: LET D=Y+CY
4020 IF C<1 OR C>30 THEN  LET CX=-CX: LE
T SC=SC+2: GOTO 4010
4030 IF D<2 THEN  LET CY=-CY: LET SC=SC+
4: LET CX=INT(RND*3)-1: GOTO 4010
4035 IF D>22 THEN  LET GF=0: RETURN
4040 CSR C,D: LET E=ASC(SPK$)
4050 IF E=32 THEN   RETURN
4055 IF E=132 THEN   GOTO 4080
```

```
4057 LET BH=BH-1
4060 LET SC=SC+D: PRINT CHR$(8);" "
4070 LET CX=INT(RND*3)-1: LET CY=-CY: GO
TO 4010
4080 LET SC=SC+20: LET CY=-CY
4085 LET CX=INT(RND*3)-1
4090 GOTO 4010
4099 RETURN
5000 REM erase old ball, plot new ball
5010 CSR C,D: PRINT CHR$(131): CSR X,Y:
PRINT " "
5020 LET X=C: LET Y=D
5099 RETURN
6000 REM move bat if necessary
6010 LET A=ASC(INKEY$)
6020 IF A=8 AND BX>1 THEN  LET BX=BX-1:
GOSUB 3000
6030 IF A=25 AND BX<BE THEN  LET BX=BX+1
: GOSUB 3000
6099 RETURN
8000 REM Player has lost the ball
8010 CLS : CSR 0,10: PRINT "Game Over"
8020 CSR 0,14: PRINT "You scored :";SC
8030 IF SC>HS THEN  CSR 0,17: PRINT "Whi
ch  is the high score": LET HS=SC: GOTO
8050
8040 CSR 0,17: PRINT "Slightly (";HS-SC;
") less than": CSR 0,19: PRINT "the high
 score"
8050 CSR 0,20: PRINT "Do you want to pla
y again": CSR 14,22: PRINT "(Y/N)"
8060 LET I$=INKEY$
8070 IF I$<>"Y" AND I$<>"N" THEN  GOTO 8
060
8080 IF I$="Y" THEN  GOTO 50
8090 VS 5: CLS : CSR 10,10: PRINT "Type
RUN to restart"
8099 STOP
```

SHUTTLE LANDER
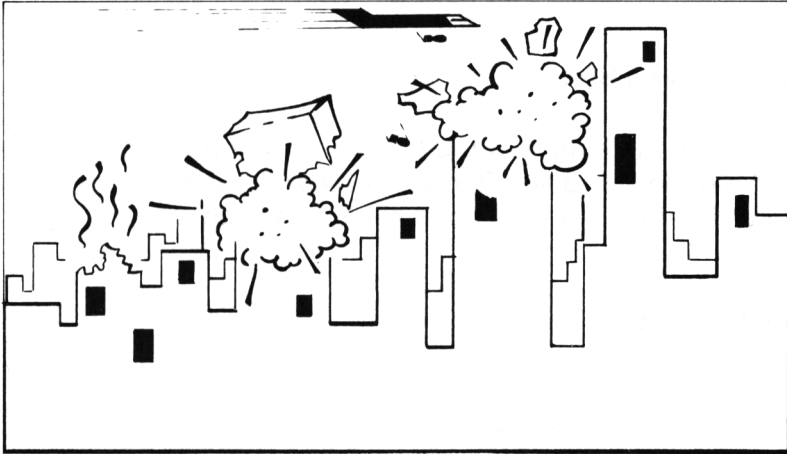
You may recall that the United States space shuttle Challenger was often nicknamed 'The Flying Brick' by it's pilots as it fell to Earth at 5,000 miles an hour, without an engine.

We have given you the same problem to solve, except we have made it even nastier for you by bringing you into a deserted city.

We have given you one edge however. You have a cargo of bombs which you can use to clear a path for your flying brick.

How to play

Entering the screen at top left you must 'fly' across the city and demolish the skyscrapers by pressing HOME key, or fire button on joystick to release your bombs.

You can choose the level of difficulty at the beginning of the game, on a scale of 1 to 10.

You can only drop a second, or third, bomb when the first has hit it's target so there is no point in pressing the HOME key, or fire button on joystick and hoping for the best.

Programming Hints

To change the height of the buildings alter the number after the * sign in line 3040. Remember if you increase the height you will reduce the time you have to respond.

The Program

```
10 REM Shuttle Lander
20 GOSUB 1000
30 LET HS=0: LET HS$="nobody"
100 REM New Player loop
110 VS 5: PAPER 13: INK 15: CLS
120 LET SC=0: GOSUB 2000
200 REM New wave loop
210 LET WF=1: LET AF=1
220 VS 4: COLOUR 2,1: COLOUR 0,1
230 COLOUR 4,5: CLS
240 GOSUB 3000
250 LET Y=176: LET X=0
260 GOSUB 4000
270 ADJSPR 1,1,2
280 LET BX=0: LET BY=-1
290 COLOUR 1,1: COLOUR 0,8: CSR 0,0: PRI
NT "    HIGH :                        ";:
CSR 9,0: PRINT HS: CSR 15,0: PRINT "SCOR
E :";SC
300 REM Movement loop
305 GOSUB 6000
310 LET X=X+8: GOSUB 4000
320 IF X<248 THEN   GOTO 350
330 LET X=0: LET Y=Y-8
340 GOSUB 4000
350 IF ASC(INKEY$)=26 AND BY=-1 AND Y<>8
```

```
     THEN   LET BX=X: LET BY=Y: CSR BX/8,(192
-BY)/8: COLOUR 0,1: PRINT " ";
360 GOSUB 5000
370 IF GR$(X+8,Y,4)<>CHR$(0) THEN   LET A
F=0
390 IF Y=8 AND X>130 THEN   LET WF=0
399 IF WF*AF=1 THEN   GOTO 300
400 IF AF=0 THEN   GOTO 500
410 REM Player landed the shuttle
415 SOUND 0,0,0: SOUND 1,0,0
420 VS 5: CLS : CSR 0,10: PRINT "The shu
ttle has been saved": PAUSE 2000
430 CSR 0,13: PRINT "For another day....
": PAUSE 2000
440 CSR 0,20: PRINT "....that day has ar
rived"
450 PAUSE 2000
499 GOTO 200
500 REM Player crashed
505 SOUND 0,0,0: SOUND 1,0,0
510 VS 5: CLS : PAPER 13: INK 1
520 CSR 0,8: PRINT "You have destroyed t
he valuable shuttle": PAUSE 2000
530 CSR 0,11: PRINT "...but not before s
coring ";SC: PAUSE 2000
540 IF SC>HS THEN   LET HS=SC: LET HS$=N$
: CSR 0,15: PRINT "You have beaten the h
igh score"
550 CSR 0,19: PRINT "The high score is "
;HS
560 CSR 0,21: PRINT "and is held by ";HS
$
600 CSR 6,1: PRINT "Do you want to try a
gain (Y/N) ?"
670 LET A$=INKEY$: IF A$<>"" THEN   GOTO
670
680 LET A$=INKEY$: IF A$="" THEN   GOTO 6
80
685 IF A$="Y" OR A$="y" THEN   GOTO 100
690 IF A$<>"N" AND A$<>"n" THEN   GOTO 67
0
699 STOP
1000 REM Generate the Shuttle
1010 CTLSPR 2,1: CTLSPR 6,2
1020 GENPAT 0,33,255,217,239,255,217,217
,239,255
```

```
1030 GENPAT 4,0,96,112,112,120,127,127,1
27,127
1040 GENPAT 5,0,0,0,0,0,0,0,0,0
1050 GENPAT 6,0,0,0,0,0,0,240,252,252
1055 GENPAT 7,0,0,0,0,0,0,0,0,0
1060 CTLSPR 3,1
1070 SPRITE 1,0,0,0,0,0,0
1080 CTLSPR 1,10
1099 RETURN
2000 REM Read in the Players name
2010 VS 5: CLS : PAPER 4: INK 1
2020 CSR 0,10: PRINT "What is your name
                       "
2030 CSR 18,10: INPUT N$
2040 IF LEN (N$)>20 OR N$="" THEN  GOTO
2020
2099 RETURN
3000 REM Generate the landscape
3010 ATTR 0,1: COLOUR 1,4
3020 CSR 0,23: PRINT "
                   ";
3025 ATTR 0,0: COLOUR 1,10
3030 FOR X=2 TO 29
3040 FOR Y=22-INT(RND*5) TO 22
3050 CSR X,Y: PRINT "!";
3060 NEXT Y: NEXT X
3099 RETURN
4000 REM Adjust sprite position
4010 ADJSPR 2,1,X
4020 ADJSPR 3,1,Y
4099 RETURN
5000 REM move a bomb down if it exists
5010 IF BY=-1 THEN  GOTO 5099
5020 COLOUR 3,15: ATTR 2,1
5030 LINE BX+3,BY,BX+5,BY-6: LINE BX+5,B
Y,BX+3,BY-6
5040 LET BY=BY-8: IF BY=8 THEN  LET BY=-
1: GOTO 5099
5045 SOUND 0,192-BY,15
5047 SOUND 1,200-BY,15
5050 IF GR$(BX,BY,4)=CHR$(0) THEN  GOTO
5080
5060 COLOUR 0,1: CSR BX/8,(192-BY)/8: PR
INT " ";
5065 LET SC=SC+25
```

```
5070 IF RND*5<2 THEN  LET BY=-1: GOTO 50
99
5080 ATTR 2,0: LINE BX+3,BY,BX+5,BY-6: L
INE BX+5,BY,BX+3,BY-6
5099 IF BY=-1 THEN  SOUND 0,0,0: SOUND 1
,0,0
5199 RETURN
6000 REM Display the score
6010 COLOUR 1,1: COLOUR 0,8
6020 CSR 22,0: PRINT SC;"    "
6099 RETURN
```

HUNT THE DAY

Have you ever wondered if your old dad was 'Fair of Face', 'Full of Grace', 'Full of Woe', had 'Far to Go' or, hopefully, was 'Full of Loving and Giving'?

Now is your chance to find out.

If you ask any members of your family, or your friends, when they were born you will be able to tell them, using this program, the actual day of the week when the great event happened.

By the way, this chart is only effective as far back as 1st January, 1753 which was when the calendar changed to it's present form. Of course, you already knew that didn't you?

Oh, by the way, we have taken account of leap years just in case you thought you could catch us out.

How to play

You will be asked for details of the date you have in mind.

When you have typed in the data press RETURN after each
item.

When you have completed the requested material your
Memotech MTX will do the rest for you.

The Program


```
10 REM Hunt the Day
100 VS 5: CLS
110 CSR 0,3: PRINT "Please give the date
 you wish to": PRINT "investigate."
120 GOSUB 1000
130 GOSUB 2000
140 CSR 0,1
150 PRINT "    That was/is/will be a ";T
$
160 CSR 0,20: PRINT "Please press <SPACE
> when ready"
200 IF INKEY$=" " THEN   GOTO 200
210 IF INKEY$<>" " THEN   GOTO 210
220 RUN
1000 REM Get a date
1010 CSR 0,10: PRINT "YEAR....
                     ": CSR 9,10
1020 INPUT Y: IF Y<1753 OR Y<>INT(Y) THE
N  GOTO 1010
1100 CSR 0,13: PRINT "Month...
                     ": CSR 9,13
1110 INPUT M$: IF LEFT$(M$,1)>="1" AND L
EFT$(M$,1)<="9" THEN   LET M=VAL(M$): GOT
0 1200
1120 RESTORE 9000
1125 LET M=0
1130 FOR L=1 TO 12
1140 READ T$: LET T$=RIGHT$(T$,3)
1150 IF T$=LEFT$(M$,3) THEN   LET M=L
1160 NEXT L
```

```
1200 IF M<1 OR M>12 OR M<>INT(M) THEN   G
OTO 1100
1300 CSR 0,16: PRINT "Day.....
                        ": CSR 9,16
1310 INPUT D
1320 IF D<1 OR D>31 OR D<>INT(D) THEN   G
OTO 1300
1999 RETURN
2000 REM Find out day of week
2010 LET A=Y+1+31*(M-1)+INT((Y-1)/4)-INT
(3*INT((Y+99)/100)/4)
2020 IF M<=2 THEN   GOTO 2040
2030 LET A=Y+1+31*(M-1)-INT((4*M+23)/10)
+INT(Y/4)-INT(3*(INT(Y/100)+1)/4)
2040 LET A=A-INT(A/7)*7
2050 IF A=0 THEN   LET A=7
2060 LET A=A-1: IF M=2 THEN   GOTO 2100
2070 LET N=31
2080 IF M=4 OR M=6 OR M=9 OR M=11 THEN
LET N=30
2090 GOTO 2120
2100 LET N=28
2110 IF Y-INT(Y/4)*4=0 THEN   LET N=29
2120 IF D>N THEN   LET T$="Non-day
        .....doesn't exist.....": RETURN
2130 LET A=A+D: LET D=A-INT(A/7)*7: IF D
=0 THEN   LET D=7
2135 RESTORE 9500
2140 FOR L=1 TO D
2150 READ T$
2160 NEXT L
2999 RETURN
9000 DATA   JAN, FEB, MAR
9010 DATA   APR, MAY, JUN
9020 DATA   JUL, AUG, SEP
9030 DATA   OCT, NOV, DEC
9500 DATA   SUNDAY,MONDAY,TUESDAY
9510 DATA   WEDNESDAY,THURSDAY,FRIDAY
9520 DATA   SATURDAY
```

DICE
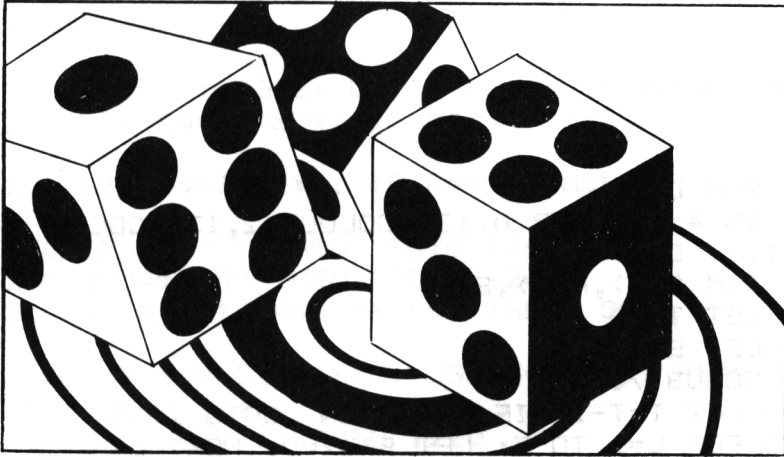
If you are bored with shooting down missiles and defending the world from alien attack then here is a game to test your gambling skill.

The Memotech MTX will 'throw' five dice for you and you must try to achieve the best sequence possible for the greatest score.

Possibilities to achieve highest scores are:

> One pair
> Three of a kind
> Two pair
> Full house (Three of a kind and two of a kind)
> Four of a kind
> Low run
> High run
> Five of a kind

How to play

After the computer's first 'throw' you can hold the dice by using keys 1 to 5. Press R to release all the dice. Use SPACE to roll the dice free. You have ten rolls to make your high score and give your partner a target to beat.

The Program

```
10 REM DICE
20 VS 4: COLOUR 0,13: COLOUR 2,13: COLOU
R 1,1: CLS
30 DIM D(5),F(5),S(6)
40 LET T=10
50 LET SC=0
60 GOSUB 7000
100 LET T=T-1: IF T=0 THEN  GOTO 2000
110 FOR L=1 TO 5: LET F(L)=0: NEXT L
115 CSR 0,6: PRINT "
                    "
116 CSR 0,10: PRINT "
                     "
117 CSR 0,14: PRINT "
                     "
118 CSR 0,19: PRINT "
                     "
120 GOSUB 1000
130 GOSUB 1200
140 GOSUB 1000
150 GOSUB 1200
160 GOSUB 1000
200 GOSUB 3000
210 LET SC=SC+NS
220 GOTO 100
1000 REM GENERATE AND SHOW 5 DICE
1010 FOR L=1 TO 5
1015 IF F(L)=1 THEN  GOTO 1060
1020 LET Q=INT(RND*60+10)
1023 LET D(L)=1
1025 FOR E=1 TO Q
1030 CSR L*3+3,4
1035 LET D(L)=D(L)+1
```

```
1040 IF D(L)=7 THEN   LET D(L)=1
1050 PRINT CHR$(128+D(L));
1055 NEXT E
1060 NEXT L
1099 RETURN
1200 REM SET THE STOP FLAGS
1202 CSR 7,1: PRINT "HOLD NOW !!!"
1204 CSR 0,6: PRINT "
                          "
1205 FOR L=1 TO 5: LET F(L)=0: NEXT L
1210 LET A$=INKEY$: IF A$<>"" THEN   GOTO
 1210
1220 LET A$=INKEY$: IF A$="" THEN   GOTO
1220
1230 IF A$=" " THEN   GOTO 1260
1235 IF A$="R" THEN   GOTO 1204
1240 IF A$<"1" AND A$>"5" THEN   GOTO 121
0
1245 LET A=ASC(A$)-48: CSR 3*A+3,6: PRIN
T "X"
1250 LET F(A)=1: GOTO 1220
1260 REM FINISHED
1270 CSR 7,1: PRINT "
                          "
1280 RETURN
2000 REM END OF GAME
2010 VS 5: CLS : PAPER 4: INK 15
2020 CSR 0,10
2030 PRINT "End of the Game"
2040 CSR 0,13
2050 PRINT "Your score is :"
2060 CSR 8,16
2070 PRINT SC
2080 CSR 5,22
2090 PRINT "Press <SPACE> to continue"
2100 LET A$=INKEY$: IF A$=" " THEN   GOTO
 2100
2110 LET A$=INKEY$: IF A$<>" " THEN   GOT
O 2110
2120 RUN
3000 REM SCORE THE DICE
3001 REM RETURN SCORE IN NS
3010 FOR L=1 TO 6: LET S(L)=0: NEXT L
3020 FOR L=1 TO 5
3030 LET S(D(L))=S(D(L))+1
3040 NEXT L
```

```
3050 LET Z2=0: FOR L=1 TO 6
3060 IF S(L)=1 THEN   LET Z2=Z2+1
3070 NEXT L
3100 LET Z1=0: FOR L=1 TO 6
3110 IF S(L)=0 THEN   LET Z1=Z1+1
3120 NEXT L
3130 IF Z1=5 THEN   GOSUB 4000: GOTO 3500
3140 IF Z1=1 AND S(6)=0 THEN   GOSUB 4350
: GOTO 3500
3150 IF Z1=1 AND S(1)=0 THEN   GOSUB 4400
: GOTO 3500
3155 IF Z1=1 THEN   GOSUB 4500: GOTO 3500
3160 IF Z1=2 THEN   GOSUB 4300: GOTO 3500
3170 IF Z1<>3 THEN   GOTO 3200
3180 IF Z2=1 THEN   GOSUB 4100: GOTO 3500
3190 IF Z2=2 THEN   GOSUB 4250: GOTO 3500
3200 IF Z2=1 THEN   GOSUB 4200: GOTO 3500
3210 GOSUB 4050
3500 REM SCORE IS NOW IN NS
3510 REM AND MESSAGE IN N$
3520 CSR 0,10: PRINT "
                         "
3530 CSR 0,10: PRINT N$
3540 CSR 8,14: PRINT "SCORE :";NS;"
  "
3550 CSR 15,19: PRINT "<SPACE>"
3600 IF INKEY$=" " THEN   GOTO 3600
3610 IF INKEY$<>" " THEN   GOTO 3610
3620 RETURN
4000 REM FIVE OF A KIND
4010 LET N$="********** EUREKA *********
*": LET NS=50: RETURN
4050 REM PAIR AND THREE
4060 LET N$="******** FULL HOUSE *******
**": LET NS=30: RETURN
4100 REM TWO PAIRS
4110 LET N$="****** DOUBLE DOUBLE ******
": LET NS=20: RETURN
4200 REM FOUR OF A KIND
4210 LET N$="******** FOUR TIMES *******
*": LET NS=15: RETURN
4250 REM THREE OF A KIND
4260 LET N$="******* THREE TIMES *******
": LET NS=10: RETURN
4300 REM ONE PAIR
4310 LET N$="**** MADE FOR EACH OTHER **
```

```
**": LET NS=7: RETURN
4350 REM LOW RUN
4360 LET N$="********* LOW RUN *********
": LET NS=24: RETURN
4400 REM HIGH RUN
4410 LET N$="********* HIGH RUN ********
*": LET NS=40: RETURN
4500 REM NO SCORE AT ALL
4510 LET Z$="*********** ZERO **********
*": LET NS=0: RETURN
7000 REM DEFINE DICE SHAPES
7010 GENPAT 1,129,0,0,0,24,24,0,0,0
7020 GENPAT 1,130,3,3,0,0,0,0,192,192
7030 GENPAT 1,131,3,3,0,24,24,0,192,192
7040 GENPAT 1,132,195,195,0,0,0,0,195,19
5
7050 GENPAT 1,133,195,195,0,24,24,0,195,
195
7060 GENPAT 1,134,195,195,0,195,195,0,19
5,195
7099 RETURN
```

MAZE MOVER
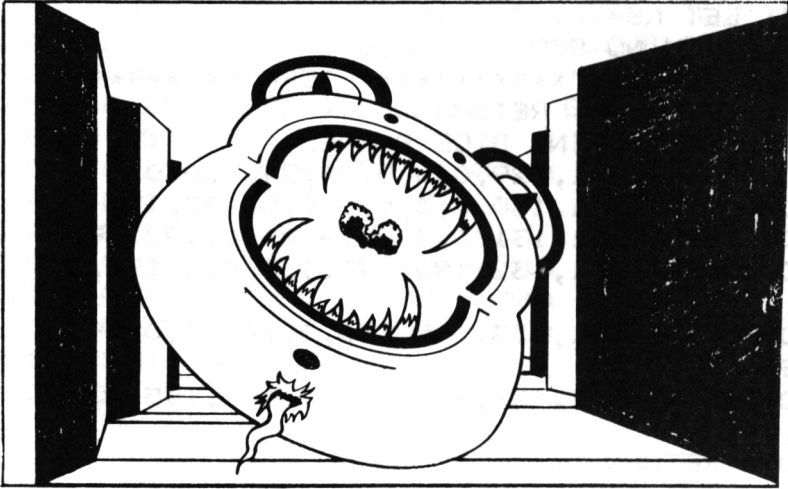
This little monster will soon let you know if your reactions and finger controls are what you think they are.

We have given you a choice of two mazes and you have to move the space star from the bottom left position to the top right of the screen.

Touch any part of the walls and you are a goner.

How to play

Use arrow keys or joystick to move up and down, left and right.

You will be given a choice of mazes at the beginning and will have to select 1 or 2 and press RETURN.

At the end of each attempt you will be asked to reselect a maze and begin again.

If you do complete successfully you will be given a points score.

By the way we think No. 2 is the tougher of the two. See if you agree.

The Program

```
10 REM Maze Mover
20 LET NU$=CHR$(0)+CHR$(0)
30 GOSUB 1000
40 GOSUB 2000
50 LET X=20: LET Y=150
60 ADJSPR 2,1,X: ADJSPR 3,1,Y: ADJSPR 1,
1,8
65 ADJSPR 2,2,210: ADJSPR 3,2,20: ADJSPR
 1,2,2
70 LET M=0
80 LET CX=5: LET CY=5
95 LET SC=5000
100 LET K=ASC(INKEY$)
102 LET SC=SC-5
110 IF K=8 OR K=25 OR K=10 OR K=11 THEN
 LET M=K
120 IF M=25 THEN  LET X=X+CX: ADJSPR 2,1
,X
130 IF M=8 THEN  LET X=X-CX: ADJSPR 2,1,
X
140 IF M=11 THEN  LET Y=Y+CY: ADJSPR 3,1
,Y
150 IF M=10 THEN  LET Y=Y-CY: ADJSPR 3,1
,Y
160 LET Z=INT(INP(2)/32): IF Z>3 THEN  L
ET Z=Z-4
170 IF Z>1 THEN  LET Z=Z-2
180 IF Z<>0 THEN  GOTO 500
190 LET A$=GR$(X,Y,4)+GR$(X-4,Y,4)
200 IF A$<>NU$ THEN  GOTO 400
290 GOTO 100
400 VS 5: CLS : PAPER 13: INK 3: CSR 0,1
0
410 PRINT "You didn't make it"
415 CSR 0,17
```

```
420 PRINT "Press <SPACE> to continue"
430 IF INKEY$=" " THEN  GOTO 430
440 IF INKEY$<>" " THEN  GOTO 440
450 RUN
500 VS 5: CLS : PAPER 4: INK 15
505 CSR 3,10
510 PRINT "Excellent score"
520 CSR 0,13: PRINT "       of";SC
530 CSR 0,17
540 GOTO 420
800 REM Choose Maze
810 VS 5: CSR 0,10
820 PRINT "Choose maze number "
830 CSR 0,16
840 PRINT "Do you want maze 1 or 2"
850 LET A=ASC(INKEY$): IF A<>ASC("1") AN
D A<>ASC("2") THEN  GOTO 850
870 RESTORE 9000: IF A=ASC("2") THEN  RE
STORE 10000
880 RETURN
1000 REM Draw the maze on the playfield
1005 GOSUB 800: VS 4: COLOUR 0,1: COLOUR
 2,1: COLOUR 4,4: CLS
1010 COLOUR 3,8
1020 FOR Y=10 TO 170 STEP 32
1030 FOR X=10 TO 202 STEP 24
1040 READ D: IF D=1 THEN  LINE X,Y,X+24,
Y: LINE X,Y-2,X+24,Y-2
1050 NEXT X: NEXT Y
1100 FOR Y=10 TO 138 STEP 32
1110 FOR X=10 TO 226 STEP 24
1120 READ D: IF D=1 THEN  LINE X,Y,X,Y+3
2: LINE X+2,Y,X+2,Y+32
1130 NEXT X: NEXT Y
1199 RETURN
2000 REM Initialise Sprite Graphics
2010 CTLSPR 2,3: CTLSPR 3,0: CTLSPR 1,1
2020 GENPAT 3,0,56,56,146,124,16,16,40,6
8
2030 GENPAT 3,1,0,129,66,60,60,66,129,0
2040 SPRITE 1,0,0,0,0,0,0
2050 SPRITE 2,1,0,0,0,0,0
2060 SPRITE 3,0,0,208,0,0,0
2099 RETURN
9000 DATA  1,1,1,1,1,1,1,1,1
9010 DATA  0,1,0,0,0,0,0,0,1
```

```
9020 DATA   1,0,0,1,0,1,0,1,0
9030 DATA   0,1,1,0,0,0,0,0,1
9040 DATA   1,0,0,1,1,0,0,0,0
9050 DATA    1,1,1,1,1,1,1,1,1
9100 DATA   1,0,0,1,0,0,0,1,0,1
9110 DATA   1,0,1,1,0,1,1,1,0,1
9120 DATA   1,0,1,0,1,0,0,1,0,1
9130 DATA   1,0,1,0,0,1,1,1,0,1
9140 DATA   1,0,1,0,0,0,1,0,0,1
10000 DATA   1,1,1,1,1,1,1,1,1
10010 DATA   0,1,1,1,0,0,1,0,0
10020 DATA   0,0,1,1,1,0,0,1,0
10030 DATA   0,1,1,1,0,0,0,0,0
10040 DATA   0,0,1,1,1,0,0,0,0
10050 DATA    1,1,1,1,1,1,1,1,1
10060 DATA   1,0,0,0,0,1,0,0,1,1
10070 DATA   1,1,0,0,0,1,1,0,1,1
10080 DATA   1,1,0,0,0,1,1,0,1,1
10090 DATA   1,1,0,0,0,1,1,1,1,1
10100 DATA   1,1,0,0,0,0,1,0,0,1
```

BIORYTHM GRAPHING
AND PREDICTION

Don't worry it isn't going to hurt you, just lie back and enjoy the sensation of your life flashing past you.

In simple terms this is a system which will allow you to predict the type of day you are going to have, or check and see if the day just passed, is as bad as you think possible.

You type in the data and your Memotech MTX will tell you, and show you the shape of the day to come. It will also give you an idea of the days on both sides of the day in question.

This is the type of program which could very easily be 'dumped' using the DUMP program.

Imagine the potential in drawing up friend's charts and sending them as Christmas or birthday presents.

How to play

The Memotech MTX will ask you to enter your birth date and the date of the day on which you are using the program.

You will then be asked for the year, month and day/date of the week you wish to predict. When you are asked for the day remember to enter the day/date not just any day as there are, of course, several Tuesdays in a month.

Press RETURN key after each entry.

After you key in the final information the computer will produce a chart of your physical, emotional and intellectual state on the day in question. As we said before, you will also see a picture of the days on either side and you may then decide not to leave your bed for the next week.

To clear, type RUN and return to the menu.

The Program

```
10 REM Biorhythm Graphing and Prediction
20 VS 5: CLS : CSR 0,4: PRINT "Birthdate
 entry :"
30 GOSUB 1000
40 LET BY=Y: LET BM=M: LET BD=D
50 CLS : CSR 0,4: PRINT "Date to investi
gate entry :"
60 GOSUB 1000
100 GOSUB 2000
110 LET EM=DAYS-28*INT(DAYS/28)
120 LET IT=DAYS-33*INT(DAYS/33)
130 LET PH=DAYS-23*INT(DAYS/23)
140 VS 4: COLOUR 2,1: CLS : CSR 5,0
145 COLOUR 0,1
150 COLOUR 1,4: PRINT "PHYSICAL CYCLE"
160 LET O=PH/23*360: LET MU=28/23
170 COLOUR 3,4: GOSUB 3000
200 CSR 5,1: COLOUR 1,7: PRINT "EMOTIONA
L CYCLE"
```

```
210 LET O=EM/28*360: LET MU=1
220 COLOUR 3,7: GOSUB 3000
300 CSR 5,2: COLOUR 1,10: PRINT "INTELLE
CTUAL CYCLE"
310 LET O=IT/33*360: LET MU=28/33
320 COLOUR 3,10: GOSUB 3000
330 CSR 5,3: COLOUR 1,13: PRINT "DATE RE
QUESTED"
340 COLOUR 3,13: LINE 128,5,128,125
350 IF INKEY$<>"" THEN  GOTO 350
360 IF INKEY$="" THEN  GOTO 360
370 RUN
400 STOP
1000 REM Read in a date
1010 CSR 0,10: PRINT "Year.....
                     ": CSR 9,10
1020 INPUT Y: IF Y<>INT(Y) THEN  GOTO 10
10
1030 CSR 0,15: PRINT "Month....
                     ": CSR 9,15
1040 INPUT M$
1050 IF LEFT$(M$,1)>"0" AND LEFT$(M$,1)<
="9" THEN  LET M=VAL(M$): GOTO 1100
1060 RESTORE 9000
1070 LET M=0: FOR L=1 TO 12
1080 READ T$: LET T$=RIGHT$(T$,3): IF T$
=LEFT$(M$,3) THEN  LET M=L
1090 NEXT L
1100 IF M=0 OR M<>INT(M) OR M>12 THEN  G
OTO 1030
1110 CSR 0,20: PRINT "Day......
                     ": CSR 9,20
1120 INPUT D: IF D<1 OR D>31 OR D<>INT(D
) THEN  GOTO 1110
1199 RETURN
2000 REM Find number of days
2010 LET DP=0: LET DM=0
2020 LET DP=365.25*Y: LET DM=365.25*BY
2030 RESTORE 9500
2040 FOR L=1 TO 12
2050 READ T
2060 IF M=L THEN  LET DP=DP+T
2070 IF BM=L THEN  LET DM=DM+T
2080 NEXT L
2090 LET DP=DP+D: LET DM=DM+BD
2100 LET DAYS=DP-DM
```

```
2999 RETURN
3000 REM Draw a cycle
3005 LET Y=70+60*SIN((-360*MU+O)*PI/180)
3006 LET X=48
3010 FOR TH=-360 TO 350 STEP 2.5
3020 LET OX=X: LET X=TH/4.5+128: LET OY=
Y
3030 LET Y=70+60*SIN((TH*MU+O)*PI/180)
3040 LINE OX,OY,X,Y: NEXT TH
3100 PAUSE 3000
3999 RETURN
9000 DATA  JAN, FEB, MAR
9010 DATA  APR, MAY, JUN
9020 DATA  JUL, AUG, SEP
9030 DATA  OCT, NOV, DEC
9500 DATA  0,31,59,90,120,151,181,212,24
3,273,304,334
```

METEROID STORM
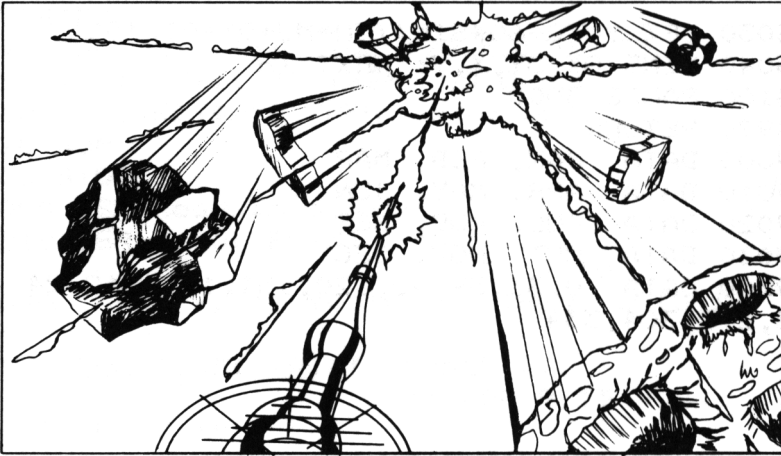
Your force field defences have disintegrated; your lasers have overheated and you are now approaching a meteroid belt.

We don't hold out much hope for your survival as it's only a matter of time, and manual dexterity, as to how long you can keep going.

Your cruiser is moving down the screen and a continuous wave of rocks and star particles are rising to meet you so good luck.

How to play

As you have no defence systems left you must try to stay alive by moving left and right using arrow keys or joystick and pausing, if you dare, by using SPACE.

To help you live a little longer we have given you three lives. You'll need them.

Programming Hints

To slow up the meteroids you can insert a delay as follows:

Line 102 FOR Z= 1 to 30: NEXT Z

The Program

```
10 REM METEROID STORM
20 VS 5: CLS
30 PAPER 13
35 INK 1
40 LET LI=3: LET SC=0
50 LET X=10
60 GENPAT 0,36,96,240,248,112,248,48,16,
0
100 GOSUB 1000
105 LET SC=SC+2
110 CSR X+1,0: LET A=ASC(SPK$)+ASC(SPK$)
+ASC(SPK$)
120 IF A=96 THEN  GOTO 190
130 LET LI=LI-1: GOSUB 2000
140 CLS
150 IF LI<>0 THEN  GOTO 100
160 GOTO 400
190 CSR X,0: PRINT " <=> ";
200 LET A=ASC(INKEY$)
205 IF A=8 AND X>0 THEN  LET X=X-1
210 IF A=25 AND X<35 THEN  LET X=X+1
300 GOTO 100
400 REM RUN OUT OF SHIPS
410 CLS : PAPER 4: INK 12
420 CSR 0,10: PRINT "You have just destr
oyed": PAUSE 2000
430 CSR 0,13: PRINT "three, VERY EXPENSI
VE...."
435 PAUSE 2000
440 CSR 0,16: PRINT "....Galactic cruise
rs.....": PAUSE 2000
460 CSR 0,20: PRINT "You have scored :";
SC
470 IF INKEY$<>"" THEN  GOTO 470
```

```
480 IF INKEY$="" THEN  GOTO 480
490 CLS : CSR 0,10: PRINT "Do you want a
nother game (Y/N) ?"
500 IF INKEY$<>"" THEN  GOTO 500
510 LET A$=INKEY$: IF A$="" THEN  GOTO 5
10
520 IF A$="Y" OR A$="y" THEN  RUN
530 IF A$<>"N" AND A$<>"n" THEN  GOTO 50
0
540 CLS : CSR 10,10
550 PRINT "THE END": CSR 9,11
560 PRINT "========="
570 STOP
1000 REM draw meteorite / and move up
1010 CSR INT(RND*40),23: PRINT "$"
1099 RETURN
2000 REM show how many lives left
2002 GOSUB 4000
2005 CLS : PAPER 7: INK 1
2007 CSR 10,5: PRINT "You're running out
 of ships"
2010 IF LI=0 THEN  GOTO 2099
2020 CSR 12,12
2030 FOR L=1 TO LI
2040 PRINT " <=> ";
2050 NEXT L
2070 PAUSE 2000
2099 RETURN
4000 REM Explosion sound
4010 FOR L=15 TO 0 STEP -1
4020 SOUND 3,4,L: PAUSE 300
4030 NEXT L
4099 RETURN
```

SAFECRACKER
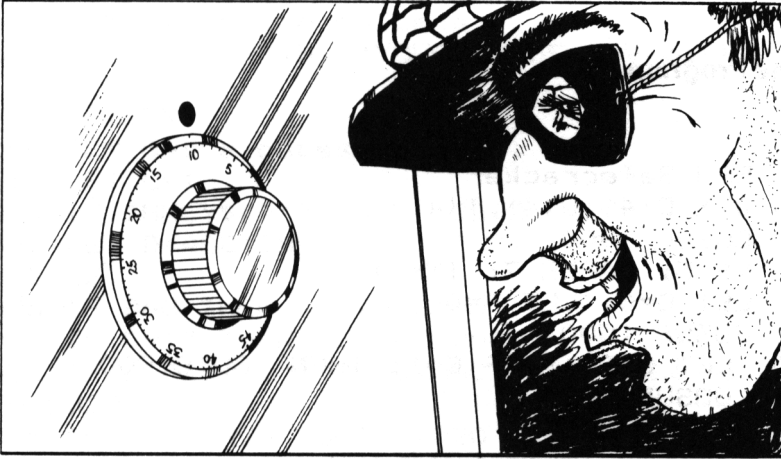
Here is your chance to see if you could be of any use to Smiley's People as an inside man.

We have set up a series of numeric codes for you to 'crack' in order to open the safe.

Digits range from 1 to 8 inclusive.

How to play

Your computer will select, at random, it's own sequence and ask for your first choice of four numbers.

Enter your numbers and press RETURN.

After your first 'guess' your Memotech MTX will put up it's 'mark' to show you how many of your numbers are correct, and how many are in the right place.

You will not be told **which** of your numbers is in the correct place, only that one, or more, is in the correct place. You will still have to decide for your next move which of your first selection is correct.

We told you it was a test for Smiley's People didn't we.

The Program

```
10 REM Safecracker
20 DIM C(4),G(4),T(4)
30 GOSUB 1000
40 VS 5: PAPER 7: INK 1
50 LET G=0: LET F=0
60 GOSUB 1500
100 LET G=G+1: IF G=11 THEN  GOTO 900
110 GOSUB 2000
120 GOSUB 3000
130 IF F=0 THEN  GOTO 100
200 REM Correct Deduction
210 CSR 0,18: PRINT "CORRECT ... The Saf
e swings gently open"
220 FOR L=1 TO 4
230 PRINT C(L);"   ";
240 NEXT L
250 CSR 8,20: PRINT "IN";G;" attempts"
260 GOTO 940
900 REM The combination remained hidden
910 CSR 0,13: PRINT "Alarm bells ring ou
t loudly": CSR 0,15: PRINT "The time swi
tch has been triggered"
920 CSR 0,18: PRINT "The combination was
 :"
923 CSR 0,20: PRINT "          ";
930 FOR L=1 TO 4: PRINT C(L);"   ";: NEXT
 L
940 IF INKEY$=" " THEN  GOTO 940
950 IF INKEY$<>" " THEN  GOTO 950
960 RUN
1000 REM Set the combination lock
1010 LET C(1)=INT(RND*8+1)
1020 FOR L=2 TO 4
```

```
1030 LET C(L)=INT(RND*8+1)
1040 FOR I=1 TO L-1
1050 IF C(L)=C(I) THEN  LET C(L)=INT(RND
*8+1): GOTO 1050
1060 NEXT I
1070 NEXT L
1099 RETURN
1500 REM Title the columns
1510 CSR 3,0: PRINT "YOUR GUESS  my mark
"
1599 RETURN
2000 REM Get a guess into G()
2010 LET L=1
2020 IF INKEY$<>"" THEN  GOTO 2020
2022 LET D=ASC(INKEY$): IF D=-1 THEN  GO
TO 2022
2025 IF D=8 THEN  GOTO 2100
2027 IF D=13 THEN  GOTO 2200
2030 IF D<ASC("1") OR D>ASC("9") THEN  G
OTO 2020
2035 IF L=5 THEN  GOTO 2020
2040 CSR 2+L*2,G+2: PRINT CHR$(D)
2050 LET G(L)=D-48: LET L=L+1: GOTO 2020
2100 LET L=L-1: IF L=0 THEN  LET L=1
2110 CSR 2+L*2,G+2: PRINT " ";
2120 GOTO 2020
2200 IF L<5 THEN  GOTO 2020
2299 RETURN
3000 REM score g() against the combinati
on
3010 LET B1=0: LET W1=0
3020 FOR H=1 TO 4
3030 IF G(H)=C(H) THEN  LET B1=B1+1
3040 NEXT H
3050 FOR L=1 TO 4: LET T(L)=C(L): NEXT L
3060 FOR J=1 TO 4
3070 IF T(J)=-1 THEN  GOTO 3110
3080 FOR L=1 TO 4
3090 IF T(J)=G(L) THEN  LET W1=W1+1: LET
 T(J)=-1
3100 NEXT L
3110 NEXT J
3120 LET W1=W1-B1
3130 IF B1=4 THEN  LET F=1
3200 CSR 14,2+G
3210 PRINT B1;"   ";W1
3299 RETURN
```

PONTOON
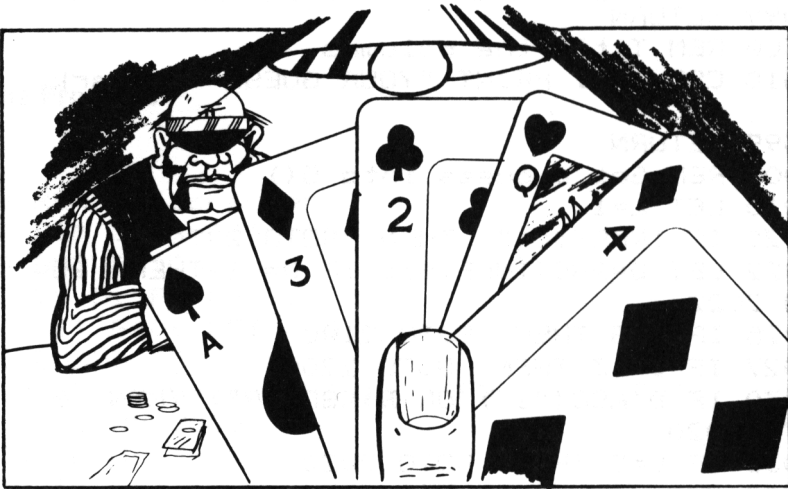
It's gamblers corner again as you pit your wits, and money, against the croupier at the old classic game. By the way you can't cheat when you show your hand as your computer already knows what you are holding.

The object of the game, in case you have never strayed into a card school, is to achieve a score of 21 in as few cards as possible. If you over buy, or over twist, and score more than 21 you are 'bust' and you lose your stake. Aces count a 1 or 11 except when you receive two aces in a deal. In this case your hand will stand as 12.

How to play

The computer will deal your first two cards and ask if you would like to T (Twist, take another card without increasing your stake); S (Stay on your existing, or eventual hand); B (Buy another card); F (Fold if you think your hand is useless,

but remember you will lose your stake money, and give you another hand).

If you buy, or twist, to a five card trick (five cards totalling 21 or less) you will beat the computer, unlesss it had a pontoon (21).

Press the key corresponding to your choice at each stage. There is no need to press RETURN at each stage.

When buying a card, type in the amount you wish to bet and press RETURN.

Remember, if you lose your shirt on this game you won't have to part with it.

The Program

```
10 REM Pontoon
20 VS 5: PAPER 5: INK 1: CLS
25 LET V=0
30 DIM C(52)
40 DIM P(10),M(2)
50 GOSUB 1000
60 LET M=2
100 REM Hand loop
110 CLS
120 LET M=M-2: IF M<0 THEN  GOTO 800
122 PRINT "You have";M;" pounds left"
125 LET BET=2
130 PRINT "Your cards :"
135 GOSUB 1500
140 GOSUB 2000: PRINT " The ";K$
150 LET P(1)=V: GOSUB 2000: GOSUB 1500
160 PRINT " The ";K$: LET P(2)=V: GOSUB
1500
165 LET N=2
166 IF P(1)=1 THEN  LET P(1)=11
168 IF P(2)=1 AND P(1)<>11 THEN  LET P(2
)=11
170 IF P(1)+P(2)=21 THEN  PRINT : PRINT
" You have got a PONTOON !!!"
```

```
180 LET SP=P(1)+P(2)
200 REM Player Choices
210 PRINT "Twist / Stick / Buy / Fold  ?
"
220 LET A$=INKEY$: IF A$<>"" THEN  GOTO
220
225 LET A$=INKEY$: IF A$="" THEN  GOTO 2
25
230 IF A$<>"T" AND A$<>"S" AND A$<>"B" A
ND A$<>"F" THEN  GOTO 220
240 IF A$="F" THEN  PRINT "O.K.  You los
e your stake": GOSUB 1500: GOTO 110
250 IF A$="S" THEN  GOTO 400
260 IF A$="B" THEN  GOSUB 1700: PRINT "O
.K.  Good luck"
270 LET N=N+1: REM next card
280 GOSUB 1500: GOSUB 2000
290 PRINT "The ";K$
300 LET P(N)=V: LET SP=0
310 FOR L=1 TO N: LET SP=SP+P(L): NEXT L
320 IF SP>21 THEN  PRINT "BUST.......":
GOTO 400
330 IF N>4 THEN  PRINT "FIVE CARD TRICK.
....."
340 IF SP=21 THEN  PRINT "TWENTY ONE....
..."
350 GOTO 210
400 REM Now the Computer plays
410 PRINT : PRINT "My cards :"
415 GOSUB 1500
420 LET MT=0: GOSUB 2000: PRINT " The ";
K$
430 LET M(1)=V: GOSUB 1500: GOSUB 2000
440 PRINT " The ";K$: GOSUB 1500: LET M(
2)=V
450 IF M(1)=1 THEN  LET M(1)=11
460 IF M(2)=1 AND M(1)<>11 THEN  LET M(2
)=11
470 IF M(1)+M(2)=21 THEN  GOTO 600
480 IF P(1)+P(2)=21 AND N=2 THEN  GOTO 7
00
490 LET MT=M(1)+M(2)
500 IF MT<SP AND SP<=21 THEN  GOTO 510
503 IF N<5 THEN  PRINT "I will stick ":
GOSUB 1500: GOTO 600
510 PRINT "I will twist..."
```

```
520 GOSUB 2000: GOSUB 1500
530 PRINT " The ";K$
540 LET MT=MT+V: GOSUB 1500
545 IF MT>21 THEN  PRINT "I am bust.....
": GOTO 700
550 GOTO 500
600 REM Player loses
610 PRINT : PRINT "You lose that hand"
620 GOSUB 1500: GOSUB 1500
699 GOTO 100
700 REM Computer loses
710 PRINT : PRINT "You win that hand"
720 GOSUB 1500: GOSUB 1500
730 LET M=M+2*BET
799 GOTO 100
800 REM Here when Player is broke
810 PRINT : PRINT "You are broke"
820 GOSUB 1500
830 PRINT "Come back on a luckier day"
840 GOSUB 1500
850 STOP
1000 REM Randomize Pack
1005 PRINT "+++++++ NEW PACK ++++++"
1010 FOR L=1 TO 52
1020 LET C(L)=L: NEXT L
1030 REM Shuffle
1040 FOR L=1 TO 100
1050 IF V>10 THEN  LET V=10
1055 LET A=INT(RND*52+1)
1060 LET B=INT(RND*52+1)
1070 LET T=C(A): LET C(A)=C(B)
1080 LET C(B)=T
1090 NEXT L
1095 LET Q=1
1099 RETURN
1500 REM A short Delay
1510 PAUSE 1000
1520 RETURN
1700 REM Increase the BET by buying
1710 PRINT "By how much ";
1720 INPUT BB: IF M-BB<0 THEN  PRINT "Yo
u haven't got that much money": GOTO 171
0
1730 LET BET=BET+BB: LET M=M-BB
1799 RETURN
```

```
2000 REM card in K
2001 REM name in K$
2010 LET K=C(Q): LET Q=Q+1: IF Q=53 THEN
   GOSUB 1000
2020 LET S=INT((K-1)/13): LET V=K-13*S
2030 ON V-1 GOSUB 2100,2110,2120,2130,21
40,2150,2160,2170,2180,2190,2200,2210,22
20
2040 ON S GOSUB 2300,2310,2320,2330,2340
2050 IF V>10 THEN  LET V=10
2099 RETURN
2100 LET K$="Ace ": RETURN
2110 LET K$="Two ": RETURN
2120 LET K$="Three ": RETURN
2130 LET K$="Four ": RETURN
2140 LET K$="Five ": RETURN
2150 LET K$="Six ": RETURN
2160 LET K$="Seven ": RETURN
2170 LET K$="Eight ": RETURN
2180 LET K$="Nine ": RETURN
2190 LET K$="Ten ": RETURN
2200 LET K$="Jack ": RETURN
2210 LET K$="Queen ": RETURN
2220 LET K$="King ": RETURN
2300 LET K$=K$+"of Clubs": RETURN
2310 LET K$=K$+"of Diamonds": RETURN
2320 LET K$=K$+"of Hearts": RETURN
2330 LET K$=K$+"of Spades": RETURN
```

MISSILE COMMAND
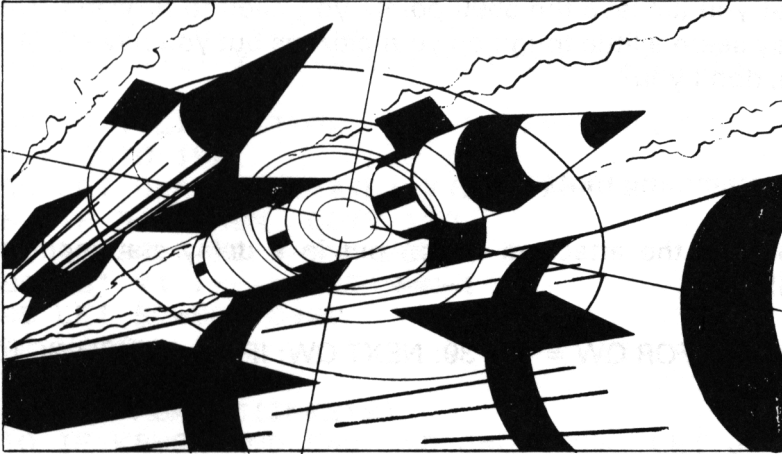
The inevitable has happened.

Your defence force is off in deep space going where no man has gone before and you are the only pilot left to defend three cities against waves of missiles. Your force field has gone down so you must fly out and stop the invaders before they reach your undefended cities. Even if you stop the missiles in the first wave they will keep coming, and the colours of the screen will change to make it more difficult for you to identify the attacker's path.

How to play

The missiles will come from the top of the screen and plot their way down towards you. You must cross their path and fire with your SPACE key. Remember that your missiles may take a second to fire so you may have to predict the attacker's path of descent.

To move use arrow keys and home key or joystick.

If you score 5000, or multiples of this number, you will be given a bonus city to defend. As the attackers have different values of points according to which wave you are on you may have to decide to let one of your cities be destroyed in order that you achieve the 5000 points you need to proceed. This may seem a little tough on your citizens but you have to play on, don't you?

Programming Hints

To slow the attackers down, put in a delay statement as follows:

Line 100 FOR QW = 1 to 30: NEXT QW: IF J = 0 THEN GOTO 110

The Program

```
0 REM Missile command
5 CLEAR
6 CTLSPR 2,1: CTLSPR 6,1
7 GENPAT 3,0,0,8,8,8,127,8,8,8
10 LET CI=3: LET BO=0: LET SC=0: LET WV=
1
20 DIM X(10),Y(10),A(10),B(10)
30 DIM F(3)
40 VS 4: COLOUR 2,1: CLS
45 ATTR 2,0
50 GOSUB 6000
70 LET N=INT(RND*8+3)
80 GOSUB 3000
90 LET C=0: LET M=N
96 IF CI<3 AND BO<>0 THEN   LET CI=CI+1:
LET BO=BO-1: GOTO 96
100 IF J=0 THEN   GOTO 110
106 LET J=J-1: IF J=0 THEN   LET E=1
110 LET C=C+1: IF C=80 THEN   GOTO 700
115 IF N=0 THEN   GOTO 700
120 FOR L=1 TO M
121 GOSUB 200
```

```
122 IF E=0 THEN   GOTO 125
123 COLOUR 3,2: LET S=E: LET X=Q: LET Y=
R: SOUND 3,4+E/6,15: GOSUB 4000: LET E=E
+1
124 IF E=21 THEN   LET E=0: SOUND 3,0,0
125 IF Y(L)=-1 THEN   GOTO 190
127 COLOUR 3,3
130 ATTR 2,0: PLOT X(L),Y(L)
140 LET X(L)=X(L)+A(L): LET Y(L)=Y(L)+B(
L)
145 IF Y(L)<24 THEN   LET Y(L)=-1: LET N=
N-1: GOTO 190
150 LET D=ASC(GR$(X(L),Y(L),4))
160 IF D=0 THEN   GOTO 190
170 IF Y(L)<52 THEN   GOSUB 7000
180 LET Y(L)=-1: LET N=N-1
185 LET SC=SC+10*WV
190 NEXT L
195 GOTO 499
200 LET KB=ASC(INKEY$)
210 IF KB=26 AND E=0 AND J=0 THEN   LET J
=3: LET Q=G: LET R=H
220 IF KB=8 AND G>10 THEN   LET G=G-2: GO
SUB 9000
230 IF KB=10 AND H>10 THEN   LET H=H-2: G
OSUB 9000
240 IF KB=11 AND H<180 THEN   LET H=H+2:
GOSUB 9000
250 IF KB=25 AND G<225 THEN   LET G=G+2:
GOSUB 9000
290 RETURN
499 IF CI+BO>0 THEN   GOTO 100
500 VS 5: CLS
520 CSR 0,5
530 PRINT " SCORE : ";SC
540 CSR 0,12
550 PRINT "     GAME OVER"
560 CSR 0,7
570 PRINT " YOU REACHED WAVE NUMBER :";W
V
580 CSR 0,19
590 PRINT "press <RETURN> to restart"
600 IF INKEY$=CHR$(13) THEN   GOTO 600
610 IF INKEY$<>CHR$(13) THEN   GOTO 610
620 RUN
700 VS 5: CLS
```

```
710 SOUND 3,0,0: SOUND 1,0,0
720 CSR 0,5: PRINT "End of wave number :
";WV
730 LET WV=WV+1
740 CSR 4,10: PRINT CI+BO;: IF CI>1 THEN
   PRINT " cities remain" ELSE  PRINT " c
ity remains"
750 CSR 0,17: PRINT "Bonus score :"
760 LET B=(CI+BO)*100*WV
770 FOR L=B TO 0 STEP -10
775 SOUND 1,L*200/B+40,15
780 CSR 13,17: PRINT "  ";L;"   "
790 NEXT L
795 SOUND 1,0,0
800 LET M5=INT(SC+B/5000)*5000
810 IF SC<M5 AND SC+B>M5 THEN  LET BO=BO
+1: PRINT "Bonus City"
820 LET SC=SC+B
890 PAUSE 3000: GOTO 40
1000 COLOUR 3,5
1010 FOR S=1 TO 20
1020 SOUND 3,S/6+4,15: GOSUB 4000
1030 NEXT S
1099 SOUND 3,0,0: RETURN
3000 FOR L=1 TO 10
3020 LET X(L)=INT(RND*240): LET Y(L)=191
3025 LET S=INT(RND*20)+60
3030 ON INT(RND*3) GOTO 3040,3050,3060
3040 LET A(L)=(37-X(L))/S: LET B(L)=(27-
Y(L))/S: GOTO 3070
3050 LET A(L)=(97-X(L))/S: LET B(L)=(29-
Y(L))/S: GOTO 3070
3060 LET A(L)=(202-X(L))/S: LET B(L)=(33
-Y(L))/S
3070 NEXT L
3080 LET G=120: LET H=100: SPRITE 1,0,G,
H,0,0,5
3090 LET J=0: LET E=0: RETURN
4000 ATTR 2,0: LET SS=S: IF S>10 THEN  A
TTR 2,1: LET SS=S-10
4010 LET SS=SS/3: CIRCLE X,Y,INT(SS)
4020 RETURN
6000 COLOUR 3,5
6010 RESTORE 10000
6015 READ D
6020 FOR L=15 TO 240 STEP 15
```

```
6030 READ DD: LINE L-15,D,L,DD
6035 LET D=DD: NEXT L
6040 READ DD: LINE 240,D,255,DD
6045 COLOUR 3,8
6046 LET F(1)=0: LET F(2)=0: LET F(3)=0
6047 ATTR 2,0: ON CI-1 GOTO 6070,6060,60
50
6050 COLOUR 3,4: LET F(1)=1: LET X=30: L
ET Y=33: GOSUB 6500
6060 COLOUR 3,6: LET F(2)=1: LET X=90: L
ET Y=35: GOSUB 6500
6070 COLOUR 3,9: LET F(3)=1: LET X=195:
LET Y=39: GOSUB 6500
6499 RETURN
6500 RESTORE 11000
6510 READ A,B
6520 LINE X,Y,X+A,Y+B
6530 LET X=X+A: LET Y=Y+B
6540 IF A<>0 OR B<>0 THEN   GOTO 6510
6599 RETURN
7000 IF X(L)<65 AND F(1)=1 THEN   LET F(1
)=0: LET X=37: LET Y=33: GOSUB 1000: LET
 CI=CI-1: LET X=30: ATTR 2,1: GOSUB 6500
: GOTO 7099
7005 IF F(1)=0 THEN   GOTO 7099
7010 IF X(L)<112 AND F(2)=1 THEN   LET F(
2)=0: LET X=97: LET Y=35: GOSUB 1000: LE
T CI=CI-1: LET X=90: ATTR 2,1: GOSUB 650
0: GOTO 7099
7015 IF F(2)=0 THEN   GOTO 7099
7030 IF F(3)=1 THEN   LET F(3)=0: LET X=2
02: LET Y=39: GOSUB 1000: LET CI=CI-1: L
ET X=195: ATTR 2,1: GOSUB 6500
7099 RETURN
9000 ADJSPR 2,1,G: ADJSPR 3,1,H: RETURN
10000 DATA   22,15,33,33,17,23,35,35,21,
14,24,21,24,39,39,24,18
11000 DATA  18,0,0,6,-2,0,0,4,-6,0,0,-6
11010 DATA  -4,0,0,4,-4,0,0,-6,-2,0,0,-2
,6,0,0,4,8,0,0,-2,2,0,0,2
11020 DATA  0,0
```

MINEFIELD
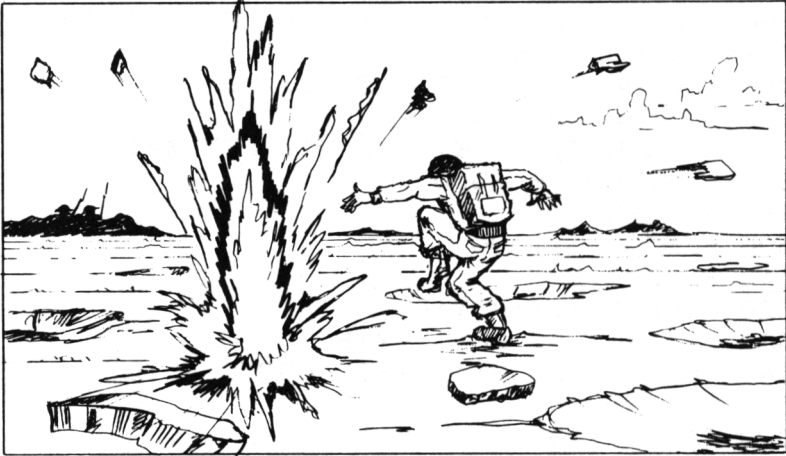
It's a darned hard life for the little man who has been deserted by his fellow soldiers, in the middle of a mine field. See if you can help him reach the dug-out where his colleagues are hiding.

The mines are randomly generated, so be careful of your moves. Don't tell the little soldier but we believe, on very good authority, that when he reaches the safety of the dug-out he is going to be sent out on another mission.

Every time he makes it through the minefield the number of mines increase and he must keep going until . . . . .

How to play

Use arrow keys or joystick. When the inevitable overcomes your hero you will see a score on the screen and you may press RETURN to send the poor little beggar back into the field.

Programming hints

If you feel that our hero deserves a break then you can reduce the rate at which the mines generate by changing the numbers in Line 2020.

This will slow down the mines and prolong your time response.

The program

```
10 REM MINEFIELD
20 LET HS=0: LET H$="nobody"
30 GOSUB 1300
100 REM MAIN NEW  PLAYER LOOP
110 LET SC=0: GOSUB 1000
120 REM MAIN NEW WAVE LOOP
130 GOSUB 1100
140 IF SC<>0 THEN  GOSUB 1200
150 LET TF=1: LET MF=1
200 REM MAIN GAME PLAY LOOP
210 GOSUB 2000
220 GOSUB 2100
230 GOSUB 2200
240 GOSUB 2300
299 IF TF*MF=1 THEN  GOTO 200
300 IF MF=0 THEN  GOTO 500
310 REM PLAYER FOUND THE TARGET
320 VS 5: PAPER 1: CLS
330 INK 4: PAPER 7: CSR 5,10
340 PRINT "Well done ";N$
350 PRINT : PRINT "You have reached the
target"
360 PRINT : PRINT "and foiled the mines"
370 IF SC>HS THEN  PRINT : PRINT "You ha
ve got the high score"
380 PAUSE 4000: GOTO 120
500 REM PLAYER HIT A MINE => DEAD
505 IF SC>HS THEN  LET HS=SC: LET H$=N$
510 VS 5: PAPER 6: INK 15: CLS
520 CSR 5,10: PRINT "You have been kille
d ": CSR 5,13: PRINT "You have scored :
";SC
```

```
530 CSR 5,16: PRINT "The high score is "
;HS: CSR 5,18: PRINT "and is held by ";H
$
540 PAUSE 2000
550 CSR 5,4: PRINT "Play again   (Y/N) ?"
560 LET A$=INKEY$: IF A$<>"" THEN   GOTO
560
570 LET A$=INKEY$: IF A$="" THEN   GOTO 5
70
580 IF A$="Y" OR A$="y" THEN   GOTO 100
590 IF A$<>"n" AND A$<>"N" THEN   GOTO 56
0
600 PAPER 4: INK 5: CLS : CSR 12,10: PRI
NT "THE END": CSR 11,11: PRINT "=========
="
610 STOP
1000 REM READ IN   NEW PLAYERS NAME
1010 VS 5: PAPER 4: INK 15: CLS
1020 CSR 5,13: PRINT "What is your name
                    ": CSR 23,13
1030  INPUT N$: IF N$="" OR LEN (N$)>15 T
HEN   PRINT CHR$(7): GOTO 1020
1050 LET X=30: LET Y=30
1060 ADJSPR 2,1,X: ADJSPR 3,1,Y
1070 ADJSPR 2,2,150: ADJSPR 3,2,100
1099 RETURN
1100 REM DRAW THE PLAYFIELD
1110 VS 4: COLOUR 2,4: COLOUR 4,3: CLS
1120 COLOUR 3,11: LINE 2,2,253,2: LINE 2
53,2,253,189: LINE 253,189,2,189: LINE 1
89,2,2,2
1199 RETURN
1200 REM reposition sprites
1220 ADJSPR 2,2,20+INT(RND*210): ADJSPR
3,2,20+INT(RND*150)
1299 RETURN
1300 REM GENERATE SPRITES
1310 CTLSPR 2,3
1320 CTLSPR 3,0: CTLSPR 5,0: CTLSPR 6,1
1330 GENPAT 3,0,56,56,146,124,16,16,40,6
8
1335 GENPAT 3,1,8,18,164,82,86,170,124,1
26
1340 SPRITE 1,0,30,30,0,0,3
1350 SPRITE 2,0,150,100,0,0,11
1360 SPRITE 3,0,-200,208,0,0,0
```

```
1370 LET X=30: LET Y=30
1399 RETURN
2000 REM PUT ANOTHER MINE ON THE SCREEN
2010 COLOUR 3,6
2020 LET A=20+INT(RND*210): LET B=20+INT
(RND*150)
2030 LINE A,B,A+5,B+5: LINE A+1,B,A+6,B+
5
2040 LINE A+5,B,A,B+5: LINE A+6,B,A+1,B+
5
2099 RETURN
2100 REM MOVE PLAYER BY KBD:
2110 LET A=ASC(INKEY$): IF A=-1 THEN  RE
TURN
2120 IF A=8 AND X>9 THEN  LET X=X-3: ADJ
SPR 2,1,X
2130 IF A=25 AND X<243 THEN  LET X=X+3:
ADJSPR 2,1,X
2140 IF A=11 AND Y<178 THEN  LET Y=Y+3:
ADJSPR 3,1,Y
2150 IF A=10 AND Y>9 THEN  LET Y=Y-3: AD
JSPR 3,1,Y
2160 IF A=8 OR A=25 OR A=11 OR A=10 THEN
   LET SC=SC+5
2199 RETURN
2200 REM CHECK TO SEE IF PLAYER FINDS TA
RGET
2210 LET C=INT(INP(2)/32): IF C>2 THEN
LET C=C-4
2213 IF C>1 THEN  LET C=C-2
2216 IF C=0 THEN  RETURN
2220 LET TF=0
2230 FOR L=200 TO 20 STEP -20
2240 FOR M=0 TO 30 STEP 4
2250 SOUND 1,L+M,15: SOUND 2,L+M+3,15
2260 NEXT M: NEXT L
2270 SOUND 1,0,0: SOUND 2,0,0
2280 LET SC=SC+250
2299 RETURN
2300 REM CHECK TO SEE IF PLAYER FINDS A
MINE
2310 GOSUB 2400: IF F=0 THEN  RETURN
2320 LET MF=0
2330 FOR L=1 TO 200
2340 ADJSPR 0,1,1: SOUND 3,RND*4,15
2350 ADJSPR 0,1,0: NEXT L
```

```
2360 SOUND 3,0,0
2399 RETURN
2400 REM check screen
2405 LET F=0
2410 IF GR$(X,Y+4,4)+GR$(X+4,Y+4,4)=CHR$
(0)+CHR$(0) THEN  RETURN
2420 LET F=1: RETURN
```

SPACE TREK
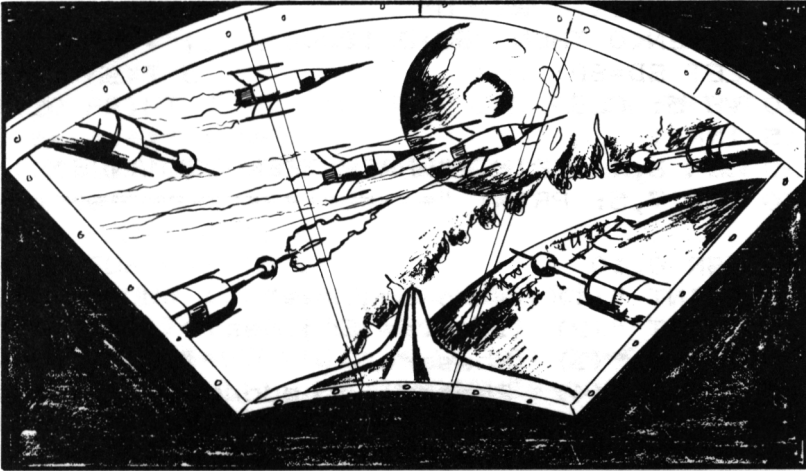
It's time to bravely go where no man has gone before, or something like that anyway.

We have supplied you here with Photon Torpedoes, Phaser Weapons and long and short range scanners but, of course, you are still going to have to deal with the Klingons yourself.

How to play

You will be given a 'menu' to choose from when you begin. Once you have made your choice the playing instructions will appear on the screen.

```
10 REM SPACE-TREK
20 GOSUB 3000
30 GOSUB 3500
40 LET EN=5000
50 LET SD=0
70 LET NP=10
100 REM MAIN TURN LOOP
105 IF EN<0 THEN  GOTO 10000
107 LET SD=SD+1.04
110 VS 5: CLS
115 INK 1
120 CSR 8,4: PRINT "SPACE TREK COMMANDS"
130 CSR 7,5: PRINT "====================
=="
140 CSR 0,10
150 PRINT "(1)    Warp Engines"
160 PRINT "(2)    Impulse Engines"
170 PRINT "(3)    Phasers"
180 PRINT "(4)    Photon Torpedoes"
190 PRINT "(5)    Dock with Starship"
193 PRINT "(6)    Long Range Scan"
196 PRINT "(7)    Short Range Scan"
210 LET A$=INKEY$
213 LET EN=EN+1: IF EN>5000 THEN  LET EN
=5000
215 IF KS=0 THEN  CSR 4,20: PRINT "Condi
tion GREEN": PAPER 2: GOTO 218 ELSE  CSR
 4,20: PRINT "Condition RED      "
216 IF RND<0.06*KS THEN  GOSUB 9000
218 CSR 14,18: PRINT "SHIP ENERGY :";EN;
"   "
219 IF A$<"1" OR A$>"7" THEN  GOTO 210
220 ON ASC(A$)-ASC("1") GOSUB 4000,5000,
6000,7000,8000,1000,2000
299 GOTO 100
1000 REM Long Range Scan
1010 CLS
1020 LET A=SX-1: LET C=SX+1
1030 LET B=SY-1: LET D=SY+1
1040 IF A<1 THEN  LET A=1 ELSE  IF C>10
THEN  LET C=10
1050 IF B<1 THEN  LET B=1 ELSE  IF D>10
THEN  LET D=10
1055 CSR 5,4
1060 FOR L=A TO C
1070 PRINT "***";CHR$(L+47);"***";
```

```
1080 NEXT L
1090 CSR 0,5: FOR L=B TO D
1100 PRINT "        ";: FOR N=A TO C: PRINT
 "*      *";: NEXT N: PRINT
1105 PRINT "    ";CHR$(L+47);" ";: FOR N=
A TO C: PRINT "*        *";: NEXT N: PRINT
1108 PRINT "        ";: FOR N=A TO C: PRINT
 "*      *";: NEXT N: PRINT
1110 NEXT L
1120 PRINT "        ";: FOR L=A TO C: PRINT
 "*******";: NEXT L
1125 CSR 3,0: PRINT "<stars , bases , kl
ingons>"
1130 FOR L=A TO C
1140 FOR M=B TO D
1145 SOUND 1,INT(RND*100)+50,15
1150 CSR 7+(L-A)*7,6+(M-B)*3
1160 LET G$=STR$(G(L,M)): LET G$=RIGHT$(
G$,LEN (G$)-1): LET G$=RIGHT$("00"+G$,3)
1165 PRINT G$
1170 NEXT M: NEXT L
1180 SOUND 1,0,0
1200 CSR 5,20: PRINT "<SPACE> to exit"
1210 IF INKEY$=" " THEN  GOTO 1210
1220 IF INKEY$<>" " THEN  GOTO 1220
1299 RETURN
2000 REM Short range scan
2010 CLS : CSR 5,5: PRINT "**0**1**2**3*
*4**5**6**7**8**9**"
2020 FOR L=0 TO 9: CSR 2,L+6
2030 PRINT STR$(L);" *
          *"
2040 NEXT L
2050 CSR 5,16
2060 PRINT "*******************************
****"
2070 FOR L=1 TO 10: FOR M=1 TO 10
2075 SOUND 1,L*M+100,15
2080 CSR 3+L*3,5+M
2090 IF S(L,M)=100 THEN  PRINT " *": GOT
O 2140
2100 IF S(L,M)=-1 THEN  PRINT "<!>": GOT
O 2140
2110 IF S(L,M)=10 THEN  PRINT ">-<": GOT
O 2140
2120 IF S(L,M)=1 THEN  PRINT "<=>"
```

```
2140 NEXT M: NEXT L
2145 SOUND 1,0,0
2150 CSR 5,20: PRINT "<SPACE> to exit"
2160 IF INKEY$=" " THEN   GOTO 2160
2170 IF INKEY$<>" " THEN   GOTO 2170
2199 RETURN
3000 REM SETUP THE GALAXY
3010 DIM G(10,10),S(10,10)
3020 LET NK=30: DIM KX(NK),KY(NK)
3030 LET SX=5: LET SY=5
3040 LET X=5: LET Y=5
3060 FOR N=1 TO NK
3070 LET L=INT(RND*10+1): LET M=INT(RND*
10+1)
3080 LET G(L,M)=G(L,M)+1
3090 NEXT N
3100 FOR L=1 TO 10: FOR M=1 TO 10
3110 LET G(L,M)=G(L,M)+100*INT(RND*5)
3120 NEXT M: NEXT L
3130 FOR N=1 TO 3
3140 LET L=INT(RND*10+1): LET M=INT(RND*
10+1)
3150 LET G(L,M)=G(L,M)+10
3160 NEXT N
3199 RETURN
3500 REM Generate this sector
3510 LET P=G(SX,SY): FOR L=1 TO 10
3520 FOR M=1 TO 10: LET S(L,M)=0: NEXT M
: NEXT L
3530 LET S(X,Y)=-1
3540 IF P<100 THEN   GOTO 3550
3543 LET P=P-100
3546 LET L=INT(RND*10+1): LET M=INT(RND*
10+1): IF S(L,M)<>0 THEN   GOTO 3546
3549 LET S(L,M)=100: GOTO 3540
3550 IF P<10 THEN   LET KS=P: GOTO 3560
3553 LET P=P-10
3556 LET L=INT(RND*10+1): LET M=INT(RND*
10+1): IF S(L,M)<>0 THEN   GOTO 3556
3559 LET S(L,M)=10: GOTO 3550
3560 IF P=0 THEN   RETURN
3570 LET P=P-1
3580 LET L=INT(RND*10+1): LET M=INT(RND*
10+1): IF S(L,M)<>0 THEN   GOTO 3580
3590 LET S(L,M)=1: GOTO 3560
3599 RETURN
```

```
4000 REM Warp Engines
4010 IF EN<1000 THEN   CLS : CSR 0,10: PR
INT "Warp engines out of commission": PA
USE 4000: RETURN
4020 CLS : CSR 0,8: PRINT "Set target se
ctor"
4030 CSR 5,12: PRINT "( X :   , Y :   )"
4040 LET L=SX-1: LET M=SY-1
4050 CSR 10,12: PRINT L: CSR 17,12: PRIN
T M
4060 LET A=ASC(INKEY$): IF A=8 THEN   LET
 L=L-1
4070 IF A=25 THEN   LET L=L+1
4080 IF A=11 THEN   LET M=M-1
4090 IF A=10 THEN   LET M=M+1
4100 IF A=26 THEN   GOTO 4200
4110 LET L=INT(MOD(L+10,10)+0.5): LET M=
INT(MOD(M+10,10)+0.5)
4115 PRINT : PRINT "Energy used:";: LET
DX=L-(SX-1): LET DY=M-(SY-1): LET P=20*I
NT(DX*DX+DY*DY): PRINT P;"     "
4120 GOTO 4050
4200 IF EN<P THEN   PRINT "Insufficient e
nergy remains": PAUSE 4000: RETURN
4220 FOR N=50 TO 200 STEP 5: SOUND 1,N,1
5: SOUND 2,N+2,15: SOUND 3,N+4,15: NEXT
N
4230 SOUND 1,0,0: SOUND 2,0,0: SOUND 3,0
,0: PRINT "You are now in sector ( ";L;"
 ,";M;" )"
4240 LET SX=L+1: LET SY=M+1: PAUSE 4000
4250 LET EN=EN-P: GOSUB 3500: RETURN
5000 REM Impulse Engines
5010 IF EN<500 THEN   CLS : CSR 0,10: PRI
NT "Impulse engines out of commission":
PAUSE 4000: RETURN
5020 CLS : CSR 0,8: PRINT "Set target co
ordinates"
5030 CSR 5,12: PRINT "( X :   , Y :   )"
5040 LET L=X-1: LET M=Y-1
5050 CSR 10,12: PRINT L: CSR 17,12: PRIN
T M
5060 LET A=ASC(INKEY$): IF A=8 THEN   LET
 L=L-1
5070 IF A=25 THEN   LET L=L+1
```

```
5080 IF A=11 THEN   LET M=M-1
5090 IF A=10 THEN   LET M=M+1
5100 IF A=26 THEN   GOTO 5200
5110 LET L=INT(MOD(L+10,10)+0.5): LET M=
INT(MOD(M+10,10)+0.5)
5115 PRINT : PRINT "Energy used:";: LET
DX=L-(X-1): LET DY=M-(Y-1): LET P=3*INT(
DX*DX+DY*DY): PRINT P;"    "
5120 GOTO 5050
5200 IF EN<P THEN   PRINT "Insufficient e
nergy is left": PAUSE 4000: RETURN
5220 PRINT "You have moved :"
5230 LET S(X,Y)=0: LET X=L+1: LET Y=M+1
5240 IF S(X,Y)<>0 THEN   PRINT : PRINT ".
...in flight collision..." ELSE   GOTO 55
00
5250 IF S(X,Y)=1 THEN   PRINT "..with a k
lingon": LET EN=EN-1500: GOTO 5500
5260 IF S(X,Y)=10 THEN   PRINT "..with a
starbase": GOTO 8500
5270 IF S(X,Y)=100 THEN   PRINT "..with a
 star..": LET EN=0: GOTO 5500
5500 LET S(X,Y)=-1: LET EN=EN-P: PAUSE 2
000: RETURN
6000 REM Phasers
6010 CLS : CSR 0,8: PRINT "PHASER WEAPON
S"
6020 CSR 0,10: PRINT "BEARING :
    ";: CSR 10,10: INPUT BR
6030 IF BR<0 OR BR>360 THEN   PRINT CHR$(
7);: PAUSE 800: GOTO 6020
6040 CSR 0,13: PRINT "ENERGY :
     ";: CSR 9,13: INPUT EP
6050 IF EP<0 OR EP>EN THEN   PRINT CHR$(7
);: PAUSE 800: GOTO 6040
6060 LET TX=X: LET TY=Y: LET CX=SIN(PI*B
R/180): LET CY=-COS(PI*BR/180)
6080 LET TX=TX+CX: LET TY=TY+CY
6085 IF TX<1 OR TX>10 OR TY<1 OR TY>10 T
HEN   GOTO 6200
6090 LET P=S(INT(TX+0.5),INT(TY+0.5)): I
F P=0 THEN   GOTO 6080
6100 IF P=10 THEN   PRINT "You just destr
oyed a starbase": LET G(SX,SY)=G(SX,SY)-
10: LET S(INT(TX),INT(TY))=0: GOTO 6080
6110 IF P<>1 THEN   GOTO 6120
```

```
6112 PRINT "You hit a klingon"
6115 IF RND*500<EP THEN  PRINT "and you
destroyed it": LET G(SX,SY)=G(SX,SY)-1:
LET S(INT(TX+0.5),INT(TY+0.5))=0: LET NK
=NK-1: LET KS=KS-1
6120 GOTO 6080
6200 LET EN=EN-EP: PAUSE 3000: RETURN
7000 REM Photon Torpedoes
7010 CLS : CSR 0,8: PRINT "PHOTON TORPED
OES"
7020 CSR 0,10: PRINT "Number to fire :
                     ";: CSR 17,10: INP
UT PP
7030 IF PP<1 OR PP>NP THEN  PRINT CHR$(7
);: PAUSE 800: GOTO 7020
7040 LET NP=NP-PP
7050 FOR M=1 TO PP
7060 PRINT "Photon torpedo";M;" fired an
d running......";: FOR L=1 TO 20: PRINT
". ";: PAUSE 300: NEXT L
7065 PRINT
7070 IF RND<0.3 THEN  PRINT "It missed..
......": GOTO 7200
7080 IF G(SX,SY)/10=INT(G(SX,SY)/10) THE
N  PRINT "The torpedo runs out into spac
e": GOTO 7200
7090 PRINT "Homing devices actuated"
7100 LET A=INT(RND*10+1): LET B=INT(RND*
10+1): IF S(A,B)<>1 THEN  GOTO 7100
7110 PRINT "You hit a klingon": IF RND<0
.75 THEN  PRINT "and you destroyed it":
LET S(A,B)=0: LET KS=KS-1: LET G(SX,SY)=
G(SX,SY)-1: GOTO 7200
7120 PRINT "but the klingon's deflectors
 pushed the torpedo off course"
7200 NEXT M
7210 PAUSE 2000
7299 RETURN
8000 REM Dock with Starbase
8010 CLS : CSR 0,5: PRINT " Docking comp
uter O.S. 0.1"
8020 PRINT "============================="
8030 CSR 0,8: PRINT "...a little unrelia
ble"
8040 CSR 0,10: FOR L=1 TO 20+INT(RND*20)
```

```
8050 LET A=INT(RND*10+1): LET B=INT(RND*
10+1)
8060 IF S(A,B)=10 THEN  PRINT "Docked su
ccessfully": LET EN=5000: LET NP=10: PRI
NT : PRINT "Energy and photon torps. ren
ewed"
8070 NEXT L
8080 PAUSE 2000
8099 RETURN
9000 REM A klingon attacks
9010 CSR 0,20: PRINT "A Klingon phaser i
s fired at you": FOR L=10 TO 200 STEP 4:
 SOUND 1,L,15: NEXT L: SOUND 1,0,0
9020 IF RND<0.4 THEN  PRINT "It misses":
 PAUSE 200: CSR 0,20: PRINT "
                        ": PRINT "
    ": RETURN
9030 PRINT "It hits you...": LET DM=INT(
RND*300+400): PAUSE 300
9040 LET EN=EN-DM
9050 CSR 0,20: PRINT "

                        ";: RETURN
10000 REM ship has been destroyed
10010 CLS : CSR 0,8: PRINT "Your space s
hip has run out of energy"
10020 PRINT : PRINT "Your life support s
ystems have failed"
10030 PRINT : PRINT ".... All passengers
  and crew"
10040 PRINT : PRINT "..are missing.. pre
sumed dead"
10050 PAUSE 5000
10060 PRINT "The stardate is : ";SD
10070 CSR 0,20: PRINT "   AGAIN (Y/N) ?
"
10080 LET A$=INKEY$: IF A$<>"" THEN  GOT
O 10080
10090 LET A$=INKEY$: IF A$="" THEN  GOTO
 10090
10100 IF A$="Y" OR A$="y" THEN  RUN
10110 IF A$<>"N" AND A$<>"n" THEN  GOTO
10080
10120 CLS : STOP
```

SPACE CAPTAIN
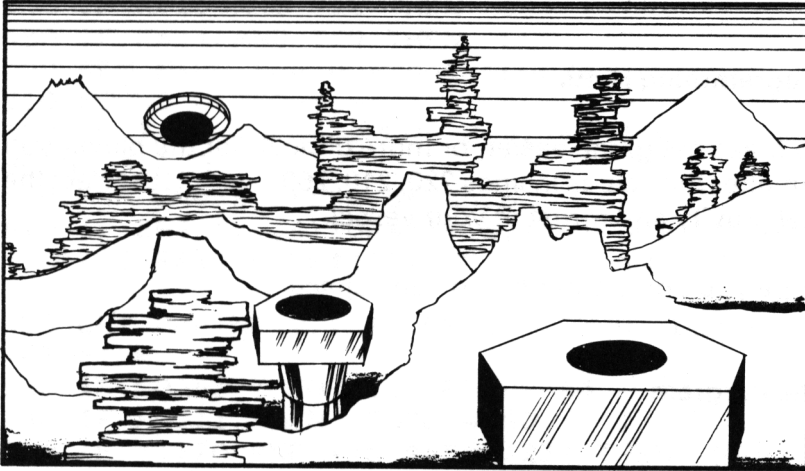
Returning from deep space in your shuttle you are faced with the dilemma of landing accurately and at the correct speed in the middle of space mountains.

Land at too great a speed and you will smash your way through the specially prepared landing pad and explode. A further problem is that if you over-correct you will drift off into space — forever.

By the way, you only have a limited amount of fuel in your tanks so, if you don't get down in time you will drift into the mountains.

How to play

To use the retro rockets to assist sideways movement use the arrow keys or joystick.

Use arrow keys or joystick to decrease or increase the thrust from the main engine and ensure a gentle landing.

There are several levels of difficulty so if you shoot off into space you will be returned to the same level of play.

Programming Hints

To make the game easier, or more difficult for the player you can alter the values in lines 220, 210, 250   to effect the fuel gravity and thrust of your vessel.

Hope you don't drift off into deep space.

The Program

```
10 REM Space
20 VS 4: CLS
30 GOSUB 1000
100 REM Main new player loop
110 LET G=0.5
200 REM Main new wave loop
210 LET G=G+1: IF G=9.5 THEN  LET G=8.5
215 VS 4: CLS
220 LET F=500
230 LET X=128: LET Y=150
240 LET CY=0
250 LET T=G-0.5
255 LET S=0
260 CLS : GOSUB 2000
270 ADJSPR 1,1,G+2
300 REM Main movement loop
305 PAUSE 40: REM this sets the speed of
 the game
307 GOSUB 3000
310 LET CY=CY-G+T
330 LET X=X+S: LET Y=Y+CY/10
340 ADJSPR 2,1,X: ADJSPR 3,1,Y
360 LET F=F-T
400 REM Check the keyboard
405 IF F<=0 THEN  GOTO 500
```

```
410 LET K=ASC(INKEY$)
420 IF K=8 AND S>-2 THEN   LET S=S-1: LET
 F=F-4
430 IF K=25 AND S<2 THEN   LET S=S+1: LET
 F=F-4
440 IF K=10 AND T>0 THEN   LET T=T-1
450 IF K=11 AND T<9 THEN   LET T=T+1
500 REM Make the descent sounds
510 SOUND 0,250-Y,6
520 IF T<>0 THEN   SOUND 3,4,T*1.5 ELSE
SOUND 3,0,0
600 REM Check state of ship
610 IF GR$(X,Y,4)+GR$(X+15,Y,4)+GR$(X+7,
Y,4)<>CHR$(0)+CHR$(0)+CHR$(0) THEN   GOTO
 4000
620 LET PP=INP(2): IF PP>127 THEN   LET P
P=PP-128
630 IF PP>63 THEN   LET PP=PP-64
640 IF PP>31 THEN   GOTO 4100
699 IF Y<170 AND X>5 AND X<237 THEN   GOT
O 300
700 REM The ship has gone off the screen
710 VS 5: CLS : PAPER 10: INK 1
720 CSR 5,10: PRINT "YOU HAVE LOST YOUR
LANDER"
730 CSR 5,14: PRINT "     IN DEEP SPACE"
800 REM retry routine
805 SOUND 0,0,0: SOUND 3,0,0
810 CSR 5,20: PRINT "Do you want another
 go (Y/N) ?";
820 LET A$=INKEY$: IF A$<>"" THEN   GOTO
820
830 LET A$=INKEY$: IF A$="" THEN   GOTO 8
30
840 IF A$="Y" OR A$="y" THEN   GOTO 899
850 IF A$<>"N" AND A$<>"n" THEN   GOTO 82
0
860 CLS : CSR 15,10: PRINT "THE END": CS
R 14,11: PRINT "========="
870 STOP
899 RUN
1000 REM Set up the sprites
1010 CTLSPR 2,3: CTLSPR 3,3: CTLSPR 4,0:
 CTLSPR 5,0: CTLSPR 6,1
1020 GENPAT 3,0,90,36,36,60,102,90,66,19
5
```

```
1030 GENPAT 3,1,129,255,126,0,0,0,0,0
1040 SPRITE 1,0,128,150,0,0,0
1050 SPRITE 2,1,0,0,0,0,14
1060 SPRITE 3,0,0,208,0,0,0
1099 RETURN
2000 REM Draw mountains and place the pa
d somewhere
2010 LET XX=INT(RND*22)+4: LET YY=INT(RN
D*10+8)
2020 ADJSPR 2,2,XX*8: ADJSPR 3,2,YY
2025 LET M1=INT(RND*18)
2030 FOR L=0 TO XX-3
2040 LET M2=INT(RND*18)
2050 LINE L*8,M1,L*8+7,M2
2060 LET M1=M2
2070 NEXT L: LET M2=YY+5: LINE L*8,M1,L*
8+8,M2: LET M1=M2
2075 FOR L=XX+1 TO 31
2080 LET M2=INT(RND*18)
2090 LINE L*8,M1,L*8+7,M2
2100 LET M1=M2
2110 NEXT L
2199 RETURN
3000 REM Update the stats. display
3020 CSR 0,0: PRINT "FUEL ";F;"   "
3030 CSR 12,0: PRINT "THRUST ";T
3040 CSR 22,0: PRINT "SPEED ";INT(CY);"
";
3099 RETURN
4000 REM The ship crashed into a mountai
n
4010 VS 5: CLS : PAPER 6: INK 4
4020 CSR 5,10: PRINT "YOU SMASHED INTO A
 MOUNTAIN"
4099 GOTO 800
4100 REM The ship has reached the landin
g pad
4105 VS 5: CLS : PAPER 8: INK 1
4110 CSR 5,10: PRINT "You reached the la
nding pad"
4120 IF CY>=-10 THEN  GOTO 4200
4130 CSR 5,15: PRINT "but you were going
 too fast"
4135 PAUSE 2000
4140 CSR 5,5: PRINT "You crashed."
4150 GOTO 800
```

```
4200 REM a perfect landing
4210 CSR 5,15: PRINT "Congratualtions...
.."
4220 CSR 5,17: PRINT ".....a perfect lan
ding"
4230 PAUSE 4000
4299 GOTO 200
```

ZOMBIE ISLAND

This is going to be a nasty experience for those amongst you who are slow on reaction time.

You are the only survivor of the mad professor's plans to turn humans into zombies and you are being pursued by ten of your old friends who now, unfortunately, have been 'de-humanised'. Your only hope is to lure the zombies into the pits which are spread around the screen. Sounds easy. There is one snag though, or is it several snags, the zombies can move in groups towards you.

How to play

As we said above, try and live as long as possible by moving with the arrow keys or joystick. If you survive you will be offered the choice of continuing to battle with your former pals.

Because of the sprite facilities of the Memotech MTX you will find that the chances of survival are fairly slim.

The program

```
10 REM ZOMBIE ISLAND
20 DIM X(3),Y(3)
30 GOSUB 1000
40 LET N=0
50 SOUND 0,0,0: SOUND 1,0,0
60 LET WV=1
100 REM NEW WAVE LOOP
110 GOSUB 3000
120 LET X=100: LET Y=100
130 ADJSPR 2,4,X: ADJSPR 3,4,Y
140 GOSUB 2000
150 LET ALIVE=3
160 LET FLAG=0
170 ADJSPR 1,4,15
200 REM MAIN PLAY LOOP
210 GOSUB 4000
215 IF ALIVE=0 THEN  GOTO 600
220 REM Check the keyboard
230 LET K=ASC(INKEY$)
240 IF K=8 AND X>5 THEN  LET X=X-3
250 IF K=25 AND X<250 THEN  LET X=X+3
260 IF K=10 AND Y>5 THEN  LET Y=Y-3
270 IF K=11 AND Y<185 THEN  LET Y=Y+3
280 ADJSPR 2,4,X: ADJSPR 3,4,Y
290 IF GR$(X,Y+2,4)+GR$(X+7,Y+2,4)<>CHR$
(0)+CHR$(0) THEN  LET FLAG=1: GOTO 399
300 GOSUB 5000
399 IF FLAG=0 THEN  GOTO 200
400 REM player died
402 FOR L=16 TO 1 STEP -1
403 SOUND 0,L,15
404 FOR LL=L*15 TO L*15+14 STEP 2
406 SOUND 1,LL,10
407 NEXT LL: ADJSPR 1,4,L: NEXT L
408 SOUND 0,0,0: SOUND 1,0,0
410 VS 5: CLS : PAPER 10: INK 4
420 CSR 5,10: PRINT "You have survived..
."
430 PAUSE 3000
```

```
440 CSR 5,13: PRINT "...until now, that
is"
450 PAUSE 3000
460 CSR 5,16: PRINT "You made it into wa
ve :";WV
470 PAUSE 3000
480 CSR 5,20: PRINT "Do you want another
 game (Y/N) ?"
490 LET A$=INKEY$: IF A$<>"" THEN  GOTO
490
500 LET A$=INKEY$: IF A$="" THEN  GOTO 5
00
510 IF A$="Y" OR A$="y" THEN  GOTO 100
520 IF A$<>"N" AND A$<>"n" THEN  GOTO 49
0
530 CLS : CSR 10,10: PRINT "THE END"
540 CSR 9,11: PRINT "=========="
550 STOP
600 REM all zombies have fallen in pits
610 VS 5: CLS : PAPER 10: INK 2
620 CSR 5,10: PRINT "Well done, they've
all died"
630 PAUSE 3000
640 CSR 5,15: PRINT "Try some more !"
650 PAUSE 3000
660 GOTO 100
1000 REM DEFINE THE ZOMBIE CHARACTERS
1010 CTLSPR 2,4: CTLSPR 6,0
1020 CTLSPR 5,0: CTLSPR 3,4
1030 GENPAT 3,0,56,56,146,124,16,16,40,1
08
1040 FOR L=1 TO 3
1050 SPRITE L,0,0,0,0,0,L*3
1060 NEXT L
1070 SPRITE 4,0,0,0,0,0,15
1080 GENPAT 0,35,0,0,24,60,60,24,0,0
1099 RETURN
2000 REM DRAW LANDSCAPE ETC.
2010 VS 4: COLOUR 2,1: COLOUR 4,2: CLS
2015 COLOUR 0,1
2020 FOR L=1 TO 15
2030 LET A=INT(RND*24+6)
2040 LET B=INT(RND*18+3)
2050 CSR A,B: COLOUR 1,INT(RND*8+4)
2060 PRINT "#": NEXT L
2099 RETURN
```

```
3000 REM INITIALISE THE ZOMBIE POSITIONS
3010 RESTORE 9000
3020 FOR L=1 TO 3
3030 READ X(L),Y(L)
3040 ADJSPR 2,L,X(L): ADJSPR 3,L,Y(L)
3050 NEXT L
3099 RETURN
4000 REM MOVE A ZOMBIE
4010 LET N=N+1: IF N=4 THEN  LET N=1
4020 IF X(N)=-1 THEN  GOTO 4010
4030 IF RND>0.5 THEN  GOTO 4050
4040 LET X(N)=X(N)+5*SGN(X-X(N)): GOTO 4
060
4050 LET Y(N)=Y(N)+5*SGN(Y-Y(N))
4060 ADJSPR 2,N,X(N): ADJSPR 3,N,Y(N)
4070 IF GR$(X(N)+4,Y(N)+2,4)=CHR$(0)  THE
N  GOTO 4099
4080 LET ALIVE=ALIVE-1
4090 LET X(N)=-1: ADJSPR 1,N,0
4095 FOR L=1 TO 240 STEP 5
4097 SOUND 0,L,15: SOUND 1,L+3,15: NEXT
L: SOUND 0,0,0: SOUND 1,0,0
4099 RETURN
5000 REM check for collisions
5010 FOR L=1 TO 3
5015 IF X(L)=-1 THEN  GOTO 5050
5020 LET D=ABS(X(L)-X)*ABS(Y(L)-Y)
5030 IF D>10 OR D<1 THEN  GOTO 5050
5040 LET FLAG=1
5050 NEXT L
5099 RETURN
9000 DATA  10,10
9010 DATA  130,150
9020 DATA  240,25
```

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THE AUTHOR
Peter Goode is the author of several best selling program books including THE ATARI 600 XL PROGRAM BOOK.

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